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TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, [redacted] 1921

No. [redacted] 190

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY,
PETITIONER,

vs.

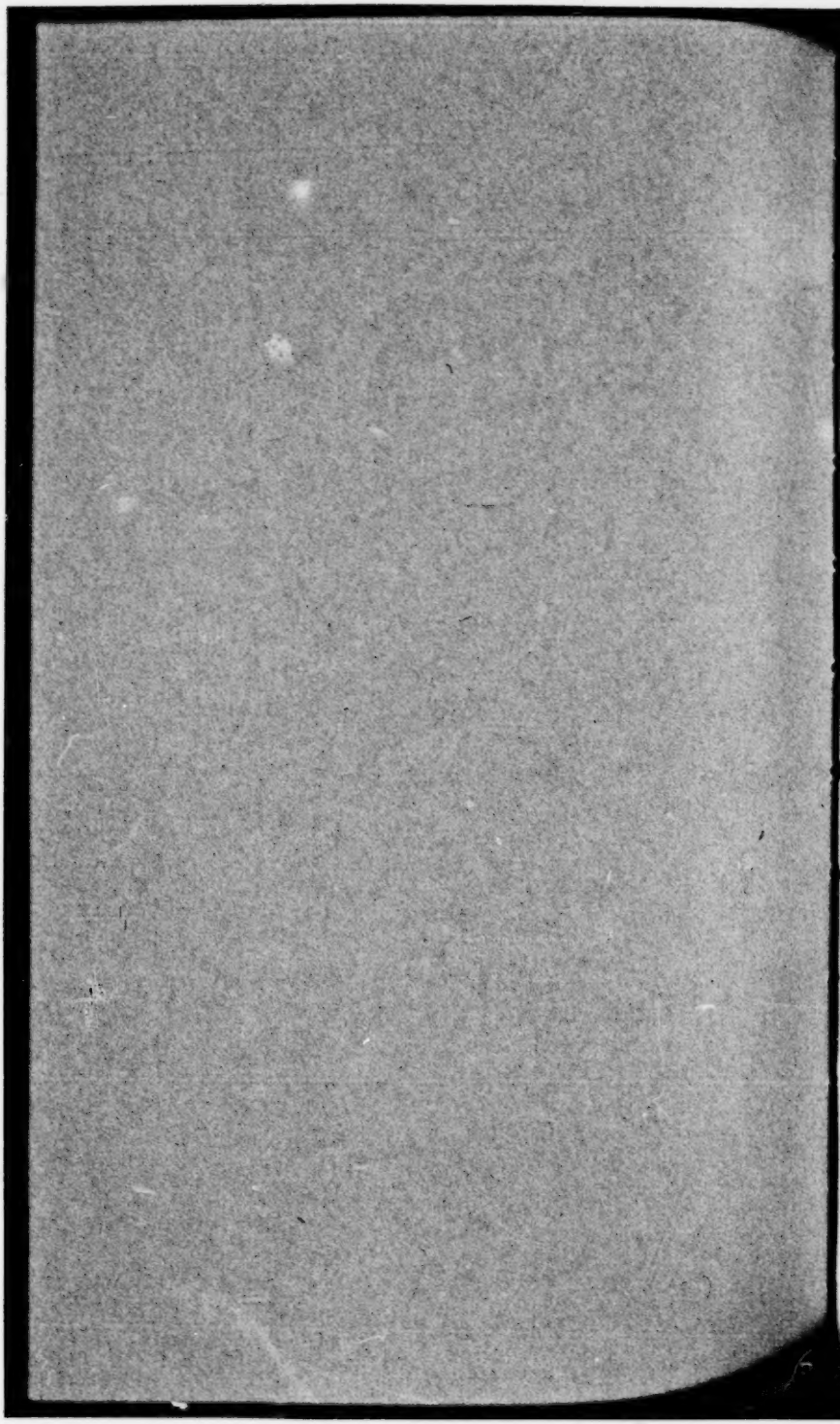
A. W. MYLROIE.

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT.

PETITION FOR CERTIORARI FILED DECEMBER 30, 1921.

CERTIORARI AND RETURN FILED FEBRUARY 4, 1922.

(28,021)



(28,021)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1920.

No. 664.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, PETITIONER,

vs.

A. W. MYLROIE.

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT.

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No. 3448

United States
Circuit Court of Appeals
For the Ninth Circuit.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation,

Appellee.

Apostles on Appeal.

Upon Appeal from the United States District Court for the District of Alaska, Division No. 1.

STATEMENT.

Time of commencement of suit, June 9, 1917.

Names of parties to the suit:

A. W. Mylroie, of Seattle, Washington, libellant;
British Tug COMMODORE, etc., respondent;
British Columbia Mills Tug & Barge Company, Ltd., a corporation, claimant.

Names and addresses of Counsel:

William H. Gorham, 653 Colman Building, Seattle, Washington, for libellant; and appellant;
C. H. Cosgrove, Ketchikan, Alaska;
C. H. Farrell,
J. H. Kane,
W. B. Stratton,
710 L. C. Smith Building, Seattle, Washington, for claimant and appellee.

Dates of filing of pleadings:

Libel filed June 9, 1917;
Answer filed, July 9, 1917.
Amended Answer filed, August 14, 1917.
Amended Libel filed, December 5, 1917.

Attachment of property and proceedings thereunder:

Monition and attachment against respondent Tug COMMODORE was issued out of the Said District Court on the libel of libellant therein, on June 9, 1917; and said Tug was attached by the United States Marshal for the District of Alaska, Division No. One, under said monition and attachment on June 10, 1917, and retained in the custody of said Marshal thereunder until July 12, 1917, when said Marshal released said Tug and delivered her into the custody of said claimant in said cause, said claimant having filed in the office of the Clerk of said District Court on July 12, 1917, a claim to said Tug, together with a stipulation for costs as provided by rule of court, and a bond for the release of said Tug in the sum of forty thousand dollars, approved as to form, surety and amount by proctor for libellant on July 9, 1917, and thereafter approved by the Judge of said District Court.

The time when the trial of said cause was had was November 7th to 16th, inclusive, 1917.

The name of the Judge hearing the same was the Honorable Robert W. Jennings, Judge of said District Court.

The trial of said cause on the merits was in open court and said cause was not referred to a commissioner or commissioners.

The date of the entry of final decree in said cause was December 28, 1918.

The date when the notice of appeal was filed in said cause was March 10, 1919; service of original admitted by proctors for claimant, March 4, 1919; service of copy certified by Clerk of District Court under seal of Court, admitted by proctors for claimant March 15, 1919.

IN THE DISTRICT COURT FOR THE DISTRICT OF ALASKA, FIRST DIVISION.

In Admiralty, No. 295 K. A.

A. W. MYLROIE, *Libellant, vs.* British Tug COMMODORE, her engines, boilers and machinery, tackle, apparel and furniture, *Respondent.*

LIBEL.

TO THE HONORABLE ROBERT W. JENNINGS, JUDGE OF THE ABOVE ENTITLED COURT:

The libel and complaint of A. W. Mylroie of Seattle, Washington, owner of the American barge *Bangor*, against the British tub *Commodore*, her engines, boilers and machinery, tackle, apparel and furniture, in a cause of damage, civil and maritime, alleges as follows:

First. That the said barge *Bangor* is a vessel of 511 gross registered tons and at all times herein mentioned was tight, staunch, strong and seaworthy and in every respect equipped, manned, supplied and victualled for a voyage through the waters of British Columbia and Alaska from the port of Seattle in the State of Washington, to the port of Anchorage in the District of Alaska and that the libellant was at all times herein mentioned the sole owner thereof.

Second. That on the 21st day of March, 1917, said barge laden with a cargo of lumber and general merchandise bound for Anchorage, Alaska, sailed under tow from the port of Seattle, and on the 22nd day of March, 1917, in the waters of the Gulf of Georgia on the international boundary line

between the United States and the Dominion of Canada was under an arrangement between libellant and the owners of said tug, picked up by said tug and taken in tow for the rest of said voyage to Anchorage.

Third. That said tug proceeded with said barge in tow on said voyage arriving off Port Simpson, British Columbia, at about 5 P. M. of the evening of the 25th day of March, 1917, without accident or casualty, the glass then being low and the wind East Southeast and rising; that said tug with said barge in tow proceeding on said voyage, at about 2 o'clock in the morning of the 26th day of March, 1917, still off and close to the east shore of Mary Island in the waters of Southeastern Alaska in a heavy sea and snow storm and with the wind blowing East Southeast at the rate of about sixty miles an hour, said tug with barge in tow then being out of her course and being under a full head of steam and sighting land, put her wheel hard over and suddenly changed her course to avoid the dangers of reefs and rocks on the east shore of Mary Island, and by reason of the sudden strain due to the sudden change of course of said tug at full speed a link in the chain of said barge to which the tow line from said tug was attached was broken and said barge went adrift; that immediately the barge's bow anchor was hove out with 55 fathoms of chain which fetched the barge up, after which by reason of the force of the wind and sea she drifted in about twenty minutes on to the east shore of Mary Island where, about two hours and one-half after being cast adrift as aforesaid she finally grounded;

That thereafter it became necessary in order to relieve said barge from her then impending perils to jettison part of her cargo and thereafter to discharge about 600 tons of her cargo and that said barge remained aground for the period of 10 days thereafter, and that after temporary repairs being made on said barge, she was floated, towed to Ketchikan, Alaska, where so much of her cargo as had been discharged was restowed and on April 17th, 1917, she proceeded from Ketchikan on her voyage to Anchorage under tow of said tug.

Fourth. That at the time said tow line parted as aforesaid said barge was following properly and carefully in the wake of the tug and obeying all her directions, and there was a competent man at the wheel on said barge.

Fifth. That nothing could have been done by the barge to prevent said link of chain from breaking or to prevent said barge from drifting and grounding as aforesaid, all of

which was caused solely by the negligence, carelessness, want of skill and ignorance of the waters and channel off said Mary Island on the part of those in charge of said tug.

Sixth. That by reason of the premises libellant has been damaged in the sum of Thirty Thousand Dollars ($30,000.00)

Seventh. That said respondent tug is now in the port of Ketchikan in the District of Alaska and the First Division thereof.

Eighth. That all and singular the premises are true and within the admiralty and maritime jurisdiction of this honorable court.

WHEREFORE, libellant prays that process of attachment in due form of law according to the course of this honorable court in causes of admiralty and maritime jurisdiction may issue against the said tug *Commodore*, her engines, boilers and machinery, tackle, apparel and furniture, and that her Master and all other persons having or pretending to have any right, title or interest therein may be cited to appear and answer all and singular the matters so articulately propounded and that this honorable court would be pleased to pronounce for the damages aforesaid with costs, and that said respondent tug *Commodore*, her engines, boilers and machinery, tackle, apparel and furniture may be condemned and sold to pay the same and that the court would grant the libellant such other and further relief as in law and justice he may be entitled to receive.

A. W. MYLROIE, *Libellant.*
WILLIAM H. GORHAM,
Proctor for Libellant.

United States of America, District of Alaska, ss.

A. W. MYLROIE, being first duly sworn on oath, deposes and says: That he is the libellant named in the above entitled cause; that he has heard the foregoing libel read, knows the contents thereof and that the same is true.

A. W. MYLROIE.

Subscribed and sworn to before me this 10th day of June, 1917.

WM. T. MAHONEY,
Notary Public in and for the District of Alaska, Residing at Ketchikan, Alaska.

Filed in District Court, June 9, 1917.

IN THE DISTRICT COURT FOR THE DISTRICT OF ALASKA, FIRST DIVISION.

In Admiralty, No. 295 K. A.

A. W. MYLROIE, *Libellant, vs.* British Tug COMMODORE, her engines, boilers and machinery, tackle, apparel and furniture, *Respondent.*

ANSWER OF RESPONDENT AND INTERVENOR.

TO THE HONORABLE ROBERT W. JENNINGS, JUDGE OF THE ABOVE ENTITLED COURT:

The answer of the British Columbia Mills Tug and Barge Company, a corporation, intervening for its interest in the said British tug, "Commodore" to the libel and complaint of A. W. Mylroie, of Seattle, Washington, owner of the American barge "Bangor" against the British tug "Commodore," her engines, boilers, and machinery, tackle, apparel, and furniture, in this cause civil and maritime, alleges:

First: That the British Columbia Mills Tug and Barge Company, a corporation, intervenor herein, is the sole owner of the said British tug "Commodore," her engines, boilers, and machinery, tackle, apparel and furniture.

Second: That as to the allegations of the first article of said libel and complaint this intervenor has no knowledge and, therefore, prays that they may be proved if they are material.

Third: That the allegations of the second article of said libel and complaint are true.

Fourth: That the allegations of article three of said libel and complaint are untrue.

Fifth: That the allegations of articles four, five and six are not true.

Sixth: That the allegation of article seven is true.

WHEREFORE: Intervenor and Respondent prays that the court should be pleased to pronounce against the libel aforesaid and to condemn the libellant in costs, and otherwise right and justice to administer in the premises.

CHAS. H. COSGROVE,
Proctor for Intervenor and Respondent.

United States of America, Territory of Alaska, ss.

Chas. H. Cosgrove, being first duly sworn, says that he is the duly authorized proctor of the Intervenor and Respondent named in the foregoing answer; that he has heard the same read, knows the contents thereof, and that the same are true. He further says that this verification is made by him as proctor for the reasons that there is no officer or agent of said respondent and intervenor within the First Division of the Territory of Alaska.

CHAS. H. COSGROVE.

Subscribed and sworn to before me this 7th day of July, 1917.

WILL H. WINSTON,
Notary Public for Alaska.

(Notary Seal)

My commission expires June 12, 1921.

Filed in District Court, July 9, 1917.

IN THE DISTRICT COURT FOR THE DISTRICT OF ALASKA, FIRST DIVISION.

No.——

In Admiralty, No. 295 K. A.

A. W. MYLROIE, *Libellant, vs.* British Tug "COMMODORE," her engines, boilers and machinery, tackle, apparel and furniture, *Respondent.*

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a corporation, *Claimant.*

AMENDED ANSWER.

To the Honorable Robert W. Jennings, Judge of the above-entitled Court:

The amended answer of the British Columbia Mills Tug & Barge Company, a corporation, intervening for its interests in the British Tug "Commodore" to the libel and complaint of A. W. Mylroie of Seattle, Washington, owner of the American Barge "Bangor," against the British Tug "Commodore," her engines, boilers and machinery, tackle, apparel and furniture, in this cause, civil and maritime, alleges:

I.

That respondent and claimant has no knowledge as to the matters contained in Article One of the libel, and requires proof of the same.

II.

Respondent and claimant admits the allegations of the second article of the libel.

III.

That the matters and things in the third, fourth, fifth, and sixth articles of the libel are in great part untrue and falsely alleged, and respondent and claimant therefore denies the truth of the allegations therein made, except so far as they may hereinafter be admitted to be true.

IV.

Respondent and claimant admits that the allegations of the seventh article of the libel were true when alleged.

V.

Respondent and claimant further alleges the facts to be that on or about the 22nd day of March, 1917, this respondent and claimant, with its tug "Commodore" took in tow the Barge "Bangor" in the waters of the Gulf of Georgia on the international boundary line between the United States and the Dominion of Canada, under an arrangement and agreement between the libellant and this respondent, which arrangement and agreement is set out and contained in a certain memorandum of agreement made the 14th day of March, 1917, in words and figures in substance as follows, to-wit:

"MEMORANDUM OF AGREEMENT made the 14th day of March in the year of our Lord One thousand nine hundred and Seventeen, Between the B. C. MILLS TUG & BARGE CO. LIMITED, whose registered office is situated in the City of Vancouver, in the Province of British Columbia (hereinafter called "the Tug Company") of the one part, and ANCHORAGE SUPPLY CO., of Seattle, Washington, and Anchorage, Alaska, (hereinafter called "the Charterers") of the other part.

WITNESSETH:—

1. That the Tug Company agree to tow during the spring, summer and autumn of the year 1917 the barge "Bangor" on a succession of round trips between the Western Boundary Line of United States Waters, and Anchorage, Alaska, for the sum of $4,500.00 for each such round trip, the said Barge to be loaded on the North bound trip and light on the South bound or return trip.

2. The Tug Company will employ their tug "Commodore" in said service barring accident to hull and/or ma-

chinery, Government requisition, or other causes beyond the control of the said Tug Company.

3. That the Tug will render to the said Barge "Bangor" reasonable assistance from time to time in any emergency which might arise, and whilst discharging at Anchorage the Tug is to be within call of the Barge at all times to render such reasonable assistance in case of any emergency which might arise. *The Tug Company is not to be held liable for any damage which might happen to the said barge "Bangor" or its cargo while in tow or at anchor.*

4. A round trip is to be considered completed on return of said Barge "Bangor" at Western Boundary Line of United States Waters off the Southern entrance to Plumper Sound, and the said sum of net $4,500.00 shall be paid by the Charterers to the Tug Company on completion of each round trip and before another is commenced.

5. The Tug Company shall allow the Charterers eight lay days, Sundays included, on each round trip, the said eight lay days to include all waiting time at Seattle and Anchorage, Alaska. Any waiting for a longer period than eight days to be paid for by the Charterers at the rate of $100.00 per day or pro rata for any period less than a day.

6. This agreement shall be in effect on or about the first day of April, 1917, till on or about the first day of November, 1917, the Charterers to give ten days' notice if tug is required earlier than the first day of April, 1917. If the Charterers shall not take the said tug by the tenth day of April, 1917, the Tug Company shall be at liberty on giving twenty-four hours' notice of their intention so to do to cancel this agreement and shall thereupon be at liberty to seek other employment for the said tug.

7. The Charterers shall give satisfactory guarantees as to payment upon delivery of the said barge in manner above mentioned.

8. That if during the life of this agreement any salvage services are performed, then after payment of the expense in connection therewith, the balance shall be divided share and share alike between Owners and Charterers.

IN WITNESS WHEREOF these presents have been executed by the parties hereto the day and year first above written.

THE COMMON SEAL of B. C. Tug & Barge Co. Limited was affixed hereto in the presence of:

"E. W. Hamber" Director
"J. A. Hendry" Secretary.

THE COMMON SEAL of Anchorage Supply Co. was affixed hereto in the presence of:

"Anchorage Supply Co."
by A. W. Mylroie."

That this respondent with its said Tug proceeded with said Barge in tow until early in the morning of the 26th day of March, 1917, when, in the neighborhood of Mary Island, in the waters of Southeastern Alaska, and during a heavy wind and snow storm, and without any fault or negligence of any kind on the part of the said Tug or those in charge of her navigation, and not on account of any defect in any of the machinery or towing appliances of the said Tug, but solely *through the force of said storm and of a defect in the equipment of said Barge*, the said Barge broke loose from said Tug and grounded in the vicinity of the east shore of Mary Island. That all of the damage and injury which was sustained by said Barge and her cargo, and by the libellant herein, was a direct and proximate result of the force of said storm and wind and *of the defect in the equipment of said Barge*, and for causes *wholly beyond the control of the said Tug*, or those in charge of the navigation thereof or of this respondent. That by reason of the terms and conditions of said memorandum of agreement of March 14th, 1917, hereinabove set out, and under which said towage services were being performed by said respondent and its said Tug, and by reason of the facts herein alleged, and a *lack of any defect in the equipment of said Tug*, or any fault or negligence in her navigation, in the absence of any fault or negligence in said Tug, her owner, master, or crew, and because of the fault and negligence and lack of proper equipment of the said Barge, neither this respondent nor its said Tug is liable for or chargeable with any of the damage or injury sustained by the libellant as alleged in the libel.

VI.

That all and singular the premises are true.

WHEREFORE, The respondent prays that this Honorable Court will pronounce against the demand of the libellant in his libel before mentioned, with costs, and otherwise right and justice to administer in the premises.

CHAS. H. COSGROVE,
Proctor for Claimant and Respondent.

United States of America, Territory of Alaska, ss.

CHARLES H. COSGROVE, being first duly sworn, on oath says:

That he is the duly authorized proctor of the claimant and respondent named in the foregoing Amended Answer; that he has read the same, knows the contents thereof, and believes the same to be true; that he makes this verification as proctor for the reason that there is no officer or agent of said respondent within the First Division of the Territory of Alaska.

CHARLES H. COSGROVE.

Subscribed and sworn to before me this 14th day of August, 1917.

WILL H. WINSTON,
Notary Public for Alaska.

My commission expires.....

Filed in District Court Aug. 14, 1917.

IN THE DISTRICT COURT FOR THE DISTRICT OF ALASKA, FIRST DIVISION.

In Admiralty. No. 295 K. A.

A. W. MYLROIE, *Libellant, vs.* British Tug COMMODORE, her engines, boilers and machinery, tackle, apparel and furniture, *Respondent.*

AMENDED LIBEL.

TO THE HONORABLE ROBERT W. JENNINGS, JUDGE OF THE ABOVE ENTITLED COURT:

The amended libel and complaint of A. W. Mylroie of Seattle, Washington, owner of the American barge *Bangor*, against the British tug *Commodore*, her engines, boilers and machinery, tackle, apparel and furniture, in a cause of damage, civil and maritime, alleges as follows:

First. That the said barge *Bangor* is a vessel of 511 gross registered tons and at all times herein mentioned was tight, staunch, strong and seaworthy and in every respect equipped, manned, supplied and victualled for a voyage through the waters of British Columbia and Alaska from the port of Seattle in the State of Washington to the port

of Anchorage in the District of Alaska, and that the libellant was at all times herein mentioned the sole owner thereof.

Second. That on the 21st day of March, 1917, said barge laden with a cargo of lumber and general merchandise, of the greater part of which he was the owner and of the remainder of which he was the lawful bailee for hire, bound for Anchorage, Alaska, sailed under tow from the Port of Seattle and on the 22nd day of March, 1917, in the waters of the Gulf of Georgia, upon the international boundary line between the United States and the Dominion of Canada, was under an arrangement between libellant and the owners of said tug, picked up by said tug and taken in tow for the rest of said voyage to Anchorage.

Third. That said tug proceeded with said barge in tow on said voyage arriving off Port Simpson, British Columbia, at about 5 P. M. of the evening of the 25th day of March, 1917, without accident or casualty, the glass then being low and the wind East Southeast and rising; that said tug with said barge in tow proceeding on said voyage and without any lookout stationed on said tug, at about 2 o'clock in the morning of the 26th day of March, 1917, still off and close to the east shore of Mary Island in the waters of Southeastern Alaska in a heavy sea and snow storm and with the wind blowing East Southeast at the rate of about sixty miles an hour, said tug with barge in tow then being out of her course and being under a full head of steam and sighting land, through the negligence and want of reasonable care, caution and maritime skill upon the part of those in charge of her, put her wheel hard over and suddenly changed her course to avoid the dangers of reefs and rocks on the east shore of Mary Island, and by reason of the sudden strain due to the sudden change of course of said tug at full speed the shackle to which the tow line from said tug was attached was broken and said barge went adrift; that immediately the barge's bow anchor was hove out with 55 fathoms of chain which fetched the barge up, after which by reason of the force of the wind and sea she drifted in about twenty minutes on to the east short of Mary Island, where, about two hours and one-half after being cast adrift as aforesaid she finally grounded;

That thereafter it became necesary in order to relieve said barge from her then impending perils to dump part of her cargo and thereafter to discharge about 600 tons of her cargo and that said barge remained aground for the period of 10 days thereafter, and that after temporary repairs, being made on said barge she was floated, towed to Ketchikan

Alaska, where so much of her cargo as had been discharged and remained in specie was restowed and on April 17th, 1917, she proceeded from Ketchikan on her voyage to Anchorage under tow of said tug.

Fourth. That at the time said tow line parted as aforesaid, said barge was following properly and carefully in the wake of the tug and obeying all her directions, and there was a competent man at the wheel on said barge.

Fifth. That nothing could have been done by the barge to prevent said shackle from breaking or to prevent said barge from drifting and grounding as aforesaid, all of which was caused solely by the negligence and want of reasonable care, caution and maritime skill on the part of those in charge of said tug.

Fifth-A. That, immediately prior to and at the time said tug picked up and took said barge in tow in the waters of the Gulf of Georgia as aforesaid and at all times thereafter during said voyage and said towage up to and including the 26th day of March, 1917, said tug was unseaworthy in this: That it was at all said times improperly and insufficiently manned in this; that it had not a sufficient number of members in its crew to enable it to station a proper or any lookout on said tug at any time and especially at night.

Sixth. That by reason of the premises libellant has been damaged in the sum of Thirty Thousand Five Hundred Sixty-two and 47/100 Dollars ($33,562.47).

Seventh. That said respondent tug is now in the port of Ketchikan in the District of Alaska and the First Division thereof.

Eighth. That all and singular the premises are true and within the admiralty and maritime jurisdiction of this honorable court.

WHEREFORE libellant prays that process of attachment in due form of law according to the course of this honorable court in causes of admiralty and maritime jurisdiction may issue against the said tug *Commodore*, her engines, boilers and machinery, tackle, apparel and furniture and that her Master and all other persons having or pretending to have any right, title or interest therein may be cited to appear and answer all and singular the matters so articulately propounded and that this honorable court would be pleased to pronounce for the damages aforesaid with costs and that said respondent tug *Commodore*, her engines,

boilers and machinery, tackle, apparel and furniture may be condemned and sold to pay the same and that the court would grant the libellant such other and further relief as in law and justice he may be entitled to receive.

A. W. MYLROIE, *Libellant.*

WILLIAM H. GORHAM,
Proctor for Libellant.

STATE OF WASHINGTON, COUNTY OF KING, ss.

A. W. Mylroie, being first duly sworn on oath, deposes and says: That he is the libellant named in the above entitled cause; that he has heard the foregoing libel read, knows the contents thereof and that the same is true.

A. W. MYLROIE.

Subscribed and sworn to before me this 30th day of November, 1917.

R. C. HAGEN,
Notary Public in and for Seattle, Washington, Residing at Seattle, Washington.

Filed in District Court December 5, 1917.

No. 295 K. A.

DISTRICT COURT, DISTRICT OF ALASKA,
DIVISION No. ONE.

A. W. MYLROIE, *Libellant, vs.* British Tug COMMODORE, etc., *Respondent;* BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, Ltd., a corporation, *Claimant.*

TESTIMONY.

STATEMENT OF FACTS AND BILL OF EXCEPTIONS.

This cause came on regularly for hearing on the merits on November 7, 1917, and said hearing was continued from day to day thereafter, Sunday excepted, until, and was concluded on, November 16, 1917, before the Honorable Robert W. Jennings, Judge of said District Court, the parties to said cause appearing by their respective proctors, and the following proceedings were had and testimony taken, each of the witnesses called at said hearing being first duly sworn to tell the truth, the whole truth and nothing but the truth, and the following depositions of witnesses for the respective parties together with exhibits attached thereto, theretofore duly taken, were severally offered, received and read in evidence, as follows, to-wit:

SESSION AT KETCHIKAN, ALASKA.

November 7, 1919.

A. W. MYLROIE, the libellant herein, called as a witness in his own behalf, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. State your full name.
A. A. W. Milroie.
Q. Your residence.
A. Seattle, Washington.
Q. Are you an American citizen?
A. I am.
Q. I will show you a certified copy of the certificate of registry of the barge Bangor in force in the month of March, 1917—are you the A. W. Milroie named in that registry as the owner of that barge?
A. Yes, sir.
Q. Were you the sole owner of the barge during all of the month of March, 1917?
A. Yes, sir.

MR. GORHAM: I offer this in evidence, if the Court please.

THE COURT: If there is no objection it will be received. (Whereupon said copy of the certificate of registry was received in evidence and marked Libellant's Exhibit A.)

Q. Did you outfit the barge Bangor for a voyage in the month of March, 1917?
A. Yes, sir.
Q. Where?
A. At Seattle, Washington.
Q. For what voyage?
A. Voyage from Seattle to Anchorage.
Q. What cargo?
A. Lumber and general merchandise.
Q. I hand you a certified copy of the coasting manifest of the barge Bangor, entered at Ketchikan March 29, 1917, certified under the hand of the Deputy Collector of Customs at Ketchikan, and ask you if this is a copy of the manifest which you filed?
A. Yes, an exact copy—a duplicate.

MR. GORHAM: We offer this in evidence, if the Court please.

THE COURT: It will be received. (Whereupon said copy of the coasting manifest was received in evidence and marked Libellant's Exhibit B.)

Q. Was the barge Bangor for this voyage with or without motive power?

A. Without motive power.

Q. Did you personally attend to dispatching her on this voyage?

A. I did.

Q. You are acquainted with the barge?

A. Very well.

Q. Aboard her many times?

A. Yes.

Q. At Seattle?

A. Yes, sir.

Q. Before loading for this voyage?

A. Yes.

Q. After loading?

A. Yes.

Q. State what her condition was before loading for this voyage in reference to her being tight.

A. Absolutely tight—exceptionally.

Q. State what her condition was before she broke ground after loading at Seattle in respect to her being tight before she broke ground, before she proceeded on her voyage and after her cargo had been laden.

A. Very tight.

Q. I show you three pieces of iron and ask you if you know what that is?

A. I do.

Q. What is it?

A. It is the shackle that parted.

Q. That is what is left of the shackle?

A. That is what is left of the shackle.

Q. What shackle?

A. The shackle which was broken at Mary Island.

Q. On this voyage?

A. On this voyage.

Q. Where did you first see that shackle?

A. When I purchased it.

Q. Where did you purchase it?

A. In Seattle, about a year ago—about ten months prior to the accident; it was May, 1916.

Q. Did you purchase it personally?

A. Yes, sir.

Q. After this barge was dispatched upon her voyage when did you next see this shackle?

A. At Mary Island—the parts of it.

Q. The parts that are here?

A. Yes.

Q. With the pin?

A. Yes.

Q. And where was it when you saw it then?

A. It was in the possession of Captain Foster.

Q. Whereabouts?

A. On the barge Bangor.

Q. Has this been in your possession, or the possession of your counsel, or the possession of Mr. Avis of Seattle at all times?

A. At all times.

Q. Since then?

A. Since then.

Q. When did your vessel on that voyage leave Seattle?

A. March 22nd, I think.

Q. Of this year?

A. Yes, of this year.

Q. Under what motive power?

A. Under an American tug.

Q. From Seattle?

A. Yes, to take her to the appointed meeting place at the international boundary line.

Q. And there that Seattle tug had orders to deliver the barge to—

A. The Commodore.

Q. You remained in Seattle?

A. Yes, sir.

Q. When did you next hear of the barge?

A. Through a telephone message from Vancouver.

Q. When did you hear?

A. The morning of the 27th was my first news.

Q. The morning of the 27th of what?

A. March.

Q. This year?

A. Yes.

Q. And what did you hear?

A. I heard she had broke adrift and gone aground.

MR. GORHAM: That is all at this time.

CROSS EXAMINATION

BY MR. STRATTON:

Q. Is that part of the shackle which you have identified in the same condition now that it was immediately after the accident?

A. No, it isn't just now.

Q. What is the difference?

A. I have had tests taken on it, and pieces were cut out to get the tensile strength and etchings.

Q. Is the pin in the same condition now that it was immediately after the accident?

A. Exactly.

Q. I show you the small round piece of this shackle and ask you whether or not that is in the same condition now as it was immediately after the accident, or whether it has been tampered with.

A. There have been two inches taken out, from this point to there (indicating).

Q. Two inches?

A. Two inches, yes.

Q. That has been cut off?

A. Been cut off, yes.

Q. How about this other piece?

A. This piece, there is about a quarter of an inch taken off of here.

Q. Off the end of it?

A. Yes, off the end of it.

Q. Where are the pieces that were taken off?

A. They are in Mr. Gorham's possession.

MR. STRATTON: Will you produce them at this time, as a part of your cross examination?

MR. GORHAM: We object to that, if the Court please—this has not been offered in evidence.

THE COURT: That has not even been identified, Mr. Stratton; it has not been marked at all.

MR. STRATTON: Allow us an exception. That is all.

(Witness excused.)

THOMAS FOSTER, introduced as a witness on behalf of the libellant, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. State your full name.
A. Thomas Foster.
Q. How old are you?
A. Forty-nine.
Q. Where were you born, Captain?
A. Pictou, Nova Scotia.
Q. What is your business?
A. Well, I have been on the water pretty near all my life.
Q. In what capacity?
A. Oh, from boy to master.
Q. On what character of vessels?
A. Oh, about every kind—sailing vessels, steam boats.
Q. Are you a master mariner?
A. Yes, sir.
Q. How long have you been a master mariner?
A. About 25 years.
Q. Who issued your papers—your master mariner's license?
A. They were issued at Ottawa.
Q. What tonnage?
A. There is no limit in the tonnage.
Q. What seas have you sailed?
A. All of them.
Q. Deep water?
A. Yes, sir.
Q. Were you in the employ of the libellant, Mr. Mylroie in the month of March, 1917?
A. Yes, sir.
Q. In what capacity?
A. I was super-cargo.
Q. On what vessel?
A. The Bangor.
Q. Then bound on her voyage to Anchorage?
A. Yes, sir.
Q. What were your duties?
A. Well, I had the operating of the barge, loading and discharging her—unloading her, and the crew.
Q. When did you join the barge in respect to the month of March, 1917?
A. Oh, all that winter and the previous summer.
Q. Were you familiar with the condition of the barge in its several departments?

A. Yes, sir.

Q. What was the condition of that barge before she was loaded for this voyage to Anchorage in March, 1917, in respect to being tight?

A. She was tight.

Q. What was her condition in reference to being stanch?

A. Stanch.

Q. And strong?

A. Strong.

Q. What was her condition in respect to being equipped for the voyage?

A. The best.

Q. And as to being supplied and manned for that voyage?

A. The best.

Q. What was her condition after loading and before breaking ground in Seattle in respect to her entire condition—tight, stanch, strong, and equipped, supplied and manned for that voyage?

A. Same.

Q. And she left Seattle under tow of a local tug?

A. Yes, sir; I think it was the Mountaineer.

Q. And the Mountaineer towed you to the International boundary line—through the Gulf of Georgia, Haro Straits, Turn Point—and then the Mountaineer dropped you?

A. Yes, sir.

Q. And what picked you up?

A. The Commodore.

Q. Did the Commodore then tow you from there to Mary Island?

A. Yes, sir.

Q. What was the towing device with which she performed that towing service?

A. She had her own hawser and it was connected on to the Bangor's shackle, and the shackle was connected on to the anchor chain of the Bangor and the chain was on to the windlass.

Q. The hawser from the tug was attached to the shackle?

A. Yes, sir.

Q. Connecting the hawser with the anchor chain of the barge?

A. Yes, sir.

Q. Whose shackle was it?

A. It belonged to the barge.

Q. Did you see that shackle at the time the tug took you in tow?

A. Yes, sir.
Q. Did you make a personal inspection of it?
A. Yes, sir; I always connect it up myself.
Q. Did you at that time?
A. Yes, sir.
Q. I will show you these pieces of iron which were exhibited to the witness Mylroie, and ask you what they are?
A. That is the shackle.
Q. What is left of the shackle, and the pin?
A. Yes, sir.
Q. Do you recognize that as the shackle you had on the barge at that time?
A. Yes, sir.
Q. Used as a part of your towing device?
A. Yes, sir.
Q. What was the condition of that shackle in respect to being of sufficient size as a part of the towing device for that voyage?

MR. STRATTON: I object—the witness has not shown himself competent to testify to that.

THE COURT: I think the objection should be sustained. I think you should lay a little more foundation.

Q. Have you in your experience as a sea-faring man ever been on vessels that have been towed?
A. Yes, sir; I have done a lot of towing myself.
Q. As master of tugs?
A. Yes, sir.
Q. What tugs?
A. Oh, British Columbia tugs, down below.
Q. In what waters?
A. Alaska and British Columbia.
Q. How many voyages as master of a tug did you make from the Gulf of Georgia into the northern British Columbia waters and Alaskan waters—approximately, I mean?
A. I made twenty-seven tows through the Seymour Narrows—from the Sound to British Columbia; not so many up through here.
Q. You were master of the vessel?
A. Yes, sir—twenty-seven.
Q. Where were you bound on those voyages?
A. From the Sound to British Columbia.
Q. What port in British Columbia?
A. Prince Rupert; all around the Skeena River.
Q. This side of Queen Charlotte?

A. Yes; not all on this side of Queen Charlotte; some on the other side.

Q. And you have been on barges and vessels towed by tugs?

A. Yes, sir.

Q. And have acted at such times as the master of the barges and vessels?

A. Yes, sir.

Q. Are you familiar with the necessary and sea-worthy towing device?

A. Yes, sir, I think so.

Q. By reason of your experience?

A. I believe so.

MR. GORHAM: We now repeat our former question, if the Court please.

MR. STRATTON: We still think, your Honor, that the witness is not qualified. He has not shown what experience he has had in reference to shackles, or if he has ever used shackles before.

THE COURT: Objection overruled.

Q. What was the condition of that shackle in respect to being of sufficient size as a part of the towing device for that voyage?

A. I couldn't see where it could be in any place better, by previous work we done with it; the shackle was all right.

Q. How long had you used that shackle before this voyage in question?

A. Oh, we made two or three trips with it.

Q. To where?

A. Anchorage.

Q. From where?

A. Seattle, and the west coast of Port Simpson.

Q. The same shackle?

A. Yes, sir.

Q. Coming north on that voyage you arrived off Port Simpson when?

A. The previous afternoon about five o'clock.

Q. Previous to the wreck, you mean?

A. Yes, sir.

Q. Five o'clock in the evening?

A. Along in the neighborhood of that time, yes.

Q. Had the tug and barge swung in abreast of Port Simpson?

A. She hauled out into the Sound there, which is Chatham Sound.

Q. State whether or not you arrived at that point o that voyage without casualty?

A. No trouble.

Q. Nothing had happened to the shackle?

A. No. From the first night the Commodore took hol it was not what you would call fair weather; there was win from Queen Charlotte Sound, and you could see the weathe was getting bad all the time.

Q. Any accident to the barge or tug or any of the equi ment up to that time?

A. No.

Q. How was the wind as you came by Simpson?

A. Oh, bad—east southeast.

Q. What was its velocity?

A. Oh, I suppose it was blowing probably 25 or 3 miles an hour.

Q. And did it thereafter increase or decrease?

A. It increased; at midnight it was increasing and ge ting squally, and the weather was getting worse all th time.

Q. From then on?

A. Yes, sir.

Q. Until when?

A. Well, the morning of the 26th it began to clear awa and lifted about seven o'clock.

Q. It increased in severity until about the time of th wreck?

A. About half past two or three o'clock that mornin was the worst.

Q. What was the condition of the sea at the time yo were off Port Simpson?

A. We didn't have much sea there—it was like an inle

Q. And as you came out into the open?

A. After we passed Pointers Rocks it was rising.

Q. State whether or not it was snowing and sleeting

A. Yes; it was squally.

Q. All during that night?

A. Yes, sir.

Q. Were you on the barge when the vessel passed Tr Point?

A. Yes, sir.

Q. On this voyage?

A. Yes, sir.

Q. I will show you Government chart No. 8075, issue by the United States Coast and Geodetic Survey, under da of July 24, 1917, of Revillagegido Channel, which I ask

have marked for identification (chart marked Libellant's Exhibit C for identification)—are you familiar with the course, bound north, from Tree Point to Mary Island?

A. Tree Point to Mary Island?

Q. Yes.

A. Yes.

Q. What is that course?

A. West 48 north—degrees.

Q. Would it be west 48 north, or north 48 west?

A. North 48 west.

Q. I show you Libellant's Exhibit C for identification, and ask you if the line marked northwest ¼ west or north 48 degrees west is the course you have referred to?

A. Yes, sir.

Q. And that is taken at Tree Point how far off shore?

A. Three-quarters of a mile.

Q. And that clears Mary Island about how far?

A. Two miles or two miles and a quarter.

Q. If you were traveling on the tug at the rate of five miles an hour on a course northwest and arrived at what you designate the little island immediately to the east of Mary Island and in that bight of Mary Island—if you were traveling on a course of northwest at 5 miles an hour from the point of departure which would bring you on that course at that rate of speed to the little island, where would be that point of departure? Have you figured that out on this chart?

A. Steered northwest from where?

Q. That is what I am asking you. If the vessel had been running on a northwest course for three-quarters of an hour at 5 miles an hour—45 minutes at 5 miles an hour—and on that course had fetched up at that little island, not accounting for winds or tides—where would she have started from?

A. How is she going to get on Mary Island northwest?

Q. If she had come along a course northwest and had reached the Island on that course?

A. She must have been three miles off Tree Point.

Q. I am talking about a run of 45 minutes. I said if she had run 45 minutes on that course and at the end of that 45 minutes had reached that little island, where would she have started from on that particular course—where would be 45 minutes back on that course?

A. Where from?

Q. From that little island; 5 miles an hour would be about 3¾ miles she would have to run in that distance.

A. That is it right there (indicating).

Q. We will mark this M—the cross at M.

A. Yes, sir.

Q. Now, if she had previous to that time for one hour and forty-one minutes—that is, 101 minutes—had been running on a course northwest ½ west, not taking into account the effect of wind and tides, where would she have come from on that course?

A. How fast?

Q. At 7½ miles an hour.

A. She was running how long?

Q. An hour and forty-one minutes—101 minutes.

A. How fast was she going—7½ miles an hour?

Q. Yes.

A. That is 19 minutes less than two hours.

Q. Yes.

A. That would put her about two miles and a half off Tree Point—right there (indicating).

Q. At the cross marked N. Now, if she had left the point N marked N and run on a northwest ½ west course, at 7½ miles an hour, she would have brought up at the point N marked M, would she?

A. Sure.

Q. And that proper course that you have marked northwest ¼ west from Tree Point to Mary Island, that would bring you where with respect to the light on Mary Island?

A. About two miles off of it—or two miles and a quarter.

Q. To the eastward?

A. Northeastward, yes.

Q. How much sea-room would you have on that course?

A. At what time?

Q. At any time during the course from Tree Point to Mary Island.

A. About three miles and a half.

Q. Was that ample sea-room for a tug and barge, bound north, of the size and character of the Commodore and Bangor?

A. I should think so.

Q. Now, as you came past Tree Point, from what quarter was the wind blowing?

A. The wind was east southeast on the starboard quarter.

Q. And what tide?

A. Flood tide.

Q. Looking at the chart again, what is the trend of the flood tide in Revillagegido Channel between Mary Island and immediately to the south of Mary Island and the main land?

MR. STRATTON: I don't think that the witness has shown that he is qualified to answer that. I do not recall any testimony where he says he was ever through that channel before.

THE COURT: You mean what was it on this particular occasion?

MR. GORHAM: No, what would be the trend of the tide?

MR. STRATTON: The chart shows that.

THE WITNESS: I piloted a boat of 3000 tons twenty years ago through there.

Q. (By Mr. Gorham): How often have you been through Revillagegido Channel?

A. A great many times.

Q. With a tow?

A. With a tow, as navigator.

Q. As a navigator on barges?

A. I have been, four or five times.

Q. Are you familiar, generally speaking, with the waters?

A. I have always managed to get along.

Q. Do you know, from your experience as a sea-faring man, what would be the trend of the tide there?

A. It would naturally set north a little—that is a flood tide.

Q. What would the main trend of it be?

A. Eastward.

Q. Why eastward?

A. The formation of the land will show you there is a set there, and the flood tide has to come in an opposite way to the neap that comes up.

Q. So the tide in Revillagegido Channel, if there was a set in, would be toward the main land?

A. Yes, certainly.

Q. What was the effect of this east southeast wind upon the barge with respect to bringing it up to or off the wind?

A. She naturally lee'd into the wind. The effect is that if it carried it any way it would carry it with the wind, and you had to starboard your helm.

Q. To what extent did it carry it out?

A. A little extent—it was noticeable.

Q. How many spokes of the wheel?

A. One or two—not all the time; you could ease her back and forth.

Q. It would be necessary, by reason of the effect of the east southeast wind upon the vessel, in order to enable the tow to properly follow the tug, to keep her slightly starboard at helm?

A. Sure; she would go to windward, and you would have to keep a little starboard.

Q. What would be the effect on both tug and tow of the set of the tide to the main land?

A. It would be—the wind would have more effect than the tide.

Q. What would be the effect of the tide, if any?

A. It would have a tendency to send her to the main land.

Q. Who was the helmsman on the barge on watch at the time of the accident?

A. I forget his name—he was a certified seaman.

Q. Qualified helmsman?

A. Yes, sir; certified seaman.

Q. Certified by whom—the maritime authorities?

A. United States Commission.

Q. State how often you were on deck between the time you passed Tree Point that night and the time of the wreck.

A. Probably three or four times.

Q. And when you were on deck state whether or not the barge was properly following the tug?

A. Oh, yes, she was.

Q. Where were you when you piled up?

A. In my room.

Q. Where was your stateroom located?

A. Aft, starboard side, right underneath the stern.

Q. Now, near the helmsroom?

A. Coming down the companion way, my room is off in a direct line perhaps 15—10, 12 or 15 feet.

Q. Did you at any time after you passed Tree Point and up to the time of the wreck hear any signals from the tug's steam whistles?

A. No, sir.

Q. Where were you some ten or fifteen minutes before the wreck?

A. I was up on deck about 15 or 20 minutes before the wreck, and then I went down again.

Q. Where were you when you went down again?
A. I went down to my room.
Q. What were you doing there?
A. I laid down on the bed.
Q. Did you undress?
A. No, sir; I had a top coat on, and my cap and boots.
Q. Were you asleep?
A. No, sir.
Q. What was the first thing that happened out of the ordinary?
A. The wheel was put hard aport, and there was a jar, and then this man came and called me.
Q. The wheel was put hard over?
A. Yes, sir.
Q. And there was a jar?
A. Yes, sir.
Q. And then you heard the man at the wheel come and call you?
A. Yes, sir.
Q. I understand you to say that the helmsman ported the helm—how could you tell the helm had been ported?
A. Well, if a man has been in the business as long as I have you can tell by the way the ship is acting. I could tell the ship had been ported because she come down into the trough of the sea and the wind would slap her, and the sea and the wind caught her counter.
Q. And after the jar the helmsman called you?
A. Yes, sir.
Q. Did he come down after you?
A. Yes, sir; he come down to the foot of the stairs; he did not come to the room.
Q. What did you do?
A. I did'nt do anything; I had my mind figured out where we were, and everything, and I didn't pay any attention to him; I told him it was all right. He went up and started to come back, and I heard him come out of the pilot house, and he said, "Mate, there is something happened," so I went back up on deck.
Q. After he called you, how long a time elapsed before he came back?
A. As long as it would take me to go to the pilot house
Q. And he started to call you the second time?
A. Yes, sir.
Q. And he didn't reach your state room?
A. No, I heard him coming.
Q. Do you know what time it was then?

A. Ten minutes to two.

Q. How could you tell?

A. I have an electric torch light that I keep at the hea of my bed, and I have a little watch there, and I jus flashed it as I walked past.

Q. At that time?

A. Yes, it was more habit than anything else.

Q. Then you went on deck?

A. Yes, sir.

Q. Now, after that first jar there, while you were belo or after you were on deck, did you feel any subsequent ja before you grounded?

A. Only when she brought up on the anchor, that is all

Q. When you went on deck what did you do?

A. I took a look ahead at the boat, and then the sur caught my attention, and I was looking at that.

Q. What surf?

A. On that island.

Q. On the little island?

A. Yes, sir; I could hear it before I saw it.

Q. What was the condition of the night in regard t being clear or thick?

A. It was thick—very thick.

Q. Snowing, hailing or raining at that time?

A. Well, snowing and squally.

Q. What did you do when you heard the surf?

A. I had an idea if she was going on that island it woul be better to be off her.

Q. Off the vessel?

A. Yes, and then I see she was going to clear the Islan and we went forward and let go the anchor, and I gave he enough chain so she would keep out of the breakers.

Q. You are talking about the little island?

A. Yes.

Q. In back of Mary Island?

A. Yes.

Q. And how soon was the anchor hove out?

A. Oh, probably ten or twelve minutes—not that long —probably eight or nine minutes.

Q. And did she finally ground?

A. Oh, yes, she drifted right in.

Q. How long after heaving the anchor out was it before she grounded?

A. Before she struck?

Q. Yes.

A. The first time she struck was about two o'clock; I

wasn't paying very much attention to the time; the boat was aground, and the tide and wind was such altogether then that I didn't pay any attention to the time.

Q. Now, between the time when you came on deck and she first struck did you feel any perceptible jar?

A. No.

Q. How long did she remain aground?

A. On Mary Island?

Q. Yes.

A. Oh, we got her off there the morning of the 6th of April.

Q. When after the accident you have described did you first see the shackle?

A. The next morning at daylight I went forward along the main line—I wanted to convince myself what was the matter, and the shackle was hanging there.

Q. That is, the two pieces—the two eyes with the pin were there?

A. Yes, sir, and the belly of the shackle was gone.

Q. Where was the barge the next day at the first low water?

A. It was on a reef inside of Mary Island.

Q. Inside of this little island?

A. Yes, sir.

Q. And what was her condition?

A. She was high and dry on the rocks.

Q. Did you make any survey of her hull?

A. Yes, sir, at low water.

Q. What did you find?

A. Her keel was gone as far as I could see then, her stem was spread, her forefoot was gone, and the oakum was shoved out of her.

Q. You say her keel was gone—do you mean to say at that time, within 12 hours, her keel was gone?

A. Well, most of it, yes; part of it shot up into the garboard strakes.

Q. What was the condition of the cargo?

A. The hold was full of water, and the cargo couldn't be in very good condition—cement, hay, plaster and such stuff like that.

Q. What did you do then in respect to relieving the vessel and saving the cargo?

A. I went to Ketchikan to get into communication with Mr. Mylroie; before that I thought there was a probability—I didn't know there was a hole put in her bilge, and I thought there was a possibility, knowing she was a good,

strong old ship, that she might possibly float off of there the next tide, and so I suggested to Captain Johnson, who came around there—

Q. The captain of the tug?

A. Yes; that we had better beat it and get a couple of gas-boats, that I thought we could get her off of there the next high water, but in the meantime this hole got in her and she was full of water, and I knew that we couldn't do anything like that, so I went to Ketchikan and got into communication with Mr. Mylroie.

Q. What was done before Mr. Mylroie arrived on the scene with reference to relieving the vessel and salving the goods?

A. I had the cargo off of her before Mr. Mylroie got there. Anything I could save was saved, and anything that was no good was chucked over.

Q. What was dumped?

A. Hay, cement, oats, potatoes, some fruit, paper, and a lot of finishing—inside finishing—kind of panel work.

Q. What kind of paper?

A. Building paper.

Q. Why was that dumped?

A. Well, I had orders to try to save the barge, and anyhow I was trying to save the barge.

Q. What was the condition of that stuff that was dumped?

A. It was all wet and destroyed.

Q. Worthless?

A. Yes.

Q. What had rendered it worthless?

A. Because it came in contact with the salt water.

Q. Had the water come up into the hold of the vessel?

A. Yes, sir.

Q. How far?

A. Oh, it come up three feet or three and a half feet in the cabin—not so far forward.

Q. How was the vessel heading as she lay grounded?

A. Oh, she was heading north northwest along there.

Q. Did she have a list to starboard or to port?

A. A little list to port.

Q. And at high tide how high did the water come up in the inside of it?

A. It depends on the tide.

Q. What was the highest it reached during that 10 days?

A. About three and a half feet in the cabin.

Q. That would be above the main deck?

A. Oh, yes; aft, not forward.

Q. Did you attempt to make any repairs to the vessel when she lay grounded on Mary Island?

A. Oh, yes, we attempted to fix her up and take her to Ketchikan.

Q. How many people did you have in your salvage operations?

A. Oh, I had 18, or 19 or 20 down there at one time.

Q. And how many gas-boats, if any?

A. Three part of the time, and two all of the time.

Q. She was finally got off the rocks?

A. Yes.

Q. How did you get her off?

A. I pulled her off with a chain.

Q. Hove her off?

A. Yes.

Q. And she then floated?

A. Yes, she floated; the wind was off the land, and I had lines out, and I slid her away, and the gas-boats hauled her out.

Q. Was she taking water at that time?

A. Oh, yes.

Q. How did you keep the water out of her hold, if at all?

A. We kept it down as much as we could with a pump —a steam pump.

Q. Then as she floated what became of her—where did she go then?

A. To Ketchikan.

Q. How did she get in here?

A. The Commodore brought her in.

Q. How did the Commodore bring her in?

A. After I got her out of Mary Island, the Commodore put a tow on her and brought her in.

Q. Out-side of the little island, abreast of the reef?

A. Inside of the little island but outside of the reef.

Q. Then she was towed to Ketchikan.

A. Yes, sir.

Q. What was done with her in Ketchikan?

A. We put her on the beach down here.

Q. Beached her?

A. Yes, sir.

Q. And patched her up?

A. Yes, sir.

Q. Did you have a cargo in her then?

A. A part of a cargo.

Q. What was done with the rest of the cargo that was not dumped?

A. Put on scows and on a raft.

Q. Brought up from the island.

A. Yes, sir.

Q. For how many days did she remain on the beach at Ketchikan?

A. About three and a half or four days, something like that.

Q. Then she was floated again?

A. Yes, sir.

Q. And what was done with her then?

A. Reloaded.

Q. How many days was she in reloading?

A. About four days and a half.

Q. What, if any, new equipment was used on her at Ketchikan?

A. We put a gasoline pump on her down here.

Q. What operated the pump?

A. It was a gasoline pump.

Q. What was the occasion for that?

A. Well, we wanted to keep her afloat.

Q. Still taking water, was she?

A. The old pump would not keep her free.

Q. After going aground at Mary Island what became of the tug?

A. She stayed around there part of the night and morning, and then she went around to Customs House Cove—she was somewhere around there, around that island into shelter.

Q. How long after 2 o'clock did you see her around there?

A. I saw her after daylight, it was.

Q. Could she see you?

A. I suppose so; I could see her.

MR. GORHAM: That's all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. How many of her crew were on the Bangor on this trip?

A. Four.

Q. Who were they?

A. There was the captain, two men and myself.

Q. Were you at the wheel of the Bangor at any time during the night of the accident?

A. No, I didn't do no steering.

Q. Who was at the wheel that night?

A. A certified seaman.

Q. Do you know his name?

A. He is a Greek of some kind—I forget it—I wouldn't know it if I heard it.

Q. He was the only man on the deck, or on the job that night, was he?

A. He was the only man on deck, yes—I was on deck myself most of the time.

Q. Up to what time were you on the lookout?

A. I was on nearly all night; I wasn't in bed for three nights before that; I would set up all night, and what sleeping I wanted to do I would get in the daytime.

Q. How long were you in the cabin before you claim to have felt this jar?

A. In the neighborhood of 15 or 20 minutes.

Q. Didn't you testify in this case before, by deposition?

A. Yes, sir, I testified—yes.

Q. Wasn't this question propounded to you: "Q. What first drew the fact that the ship was adrift to your attention? A. I was laying in bed and anybody who follows that kind of business, well, you can almost tell what the barge is doing, whether they are slowing down or going faster or changing their course." And wasn't this question asked you: "Q. How long prior to that time had you been on deck?" and didn't you answer: "A. About an hour and a half, nothing longer than two hours."

A. Oh, I know I was back and forth all that night.

Q. Did you or did you not answer those questions that way—yes or no?

A. I don't know where that is from.

Q. Did you or did you not answer those questions that way—it doesn't make any difference where this is from?

A. I don't know what that is.

Q. It doesn't make any difference whether you do or not. I asked you whether those questions were asked you and whether you gave those answers. Now, yes, or no. It don't make any difference where they came from.

A. I cannot get that.

Q. What is it you do not understand?

A. I don't understand how I said I wasn't on the deck for an hour or two hours when I was up and down all night.

Q. I will ask you whether or not those questions were asked you?

A. I don't remember.

Q. And I will ask you whether or not you made those answers as I have read to you?

A. I don't remember.

Q. If you did they were truthful answers, were they not?

A. I am here to tell the truth.

Q. I say if you did answer those questions as I have read them to you were they truthful answers?

A. I am telling the truth. If I answered them that way I don't know; I am telling you what actually happened now.

Q. I am asking you this question, if you answered the questions that I have read in the manner that I have read here, did you give truthful answers to those questions at that time?

A. I have no recollection of those questions.

Q. If you did answer them that way did you tell the truth about it?

A. If I answered them I would remember it, I should think.

Q. If you did answer that way did you tell the truth?

A. I don't know whether I did answer them that way or not.

Q. I say if you did answer that way—

A. I am telling you I was up on deck that night four or five times from the time that we passed Tree Point until we got there.

Q. Captain Foster, if this question was asked you at the time you gave your testimony in Ketchikan by deposition: "How long prior to that time had you been on deck?" and if you answered that question: "About an hour or an hour and a half, nothing longer than two hours," I ask you now whether or not that was a truthful answer?

A. This is not a case of ifs, it is a case of facts, I understand.

Q. Do you refuse to answer my question?

A. I don't refuse to answer anything.

Q. Then answer it.

A. I cannot answer a question I am not sure of; I am here to tell the truth.

Q. Did you intend to tell the truth in your former testimony?

A. Certainly.

Q. Did you answer the questions truthfully?

A. As far as I know.

Q. So, if the question I have read was asked you and you answered as I have read you were telling the truth?

A. I am here to tell the truth—I don't think this is a case of ifs.

MR. STRATTON: If the Court please, I think I am entitled to have an answer to my question.

THE COURT: I think he has answered you, Mr. Stratton.

Q. Was this Greek who was at the wheel the donkey man?

A. Yes, sir.

Q. Where were you on the lookout—you say you were on the lookout—where were you?

A. I was around the aft part of the ship—the wheelhouse—between there and my room.

Q. And where is your room with respect to the wheelhouse?

A. The wheelhouse is right aft in the middle of the barge, and my room is right down on the starboard side.

Q. How far from the extreme bow of the boat is that wheelhouse?

A. She is on the extreme end, about ten or fifteen feet from the aft rail, right on the stern of the ship.

Q. And your cabin is right close by?

A. Right underneath it, yes, sir.

Q. And you and the wheelman that night were on the aft part, near the wheelhouse, of the Bangor?

A. The wheelman was at the wheel; I do not consult him—I was around anywhere I wanted to go.

Q. And you were on the aft end of the vessel that night?

A. Certainly.

Q. No occasion to go up forward?

A. Not that I could see.

Q. What time did the Commodore pick you up that night, the night of the 25th?

A. Pick us up?

Q. Yes, at the boundary line.

A. We wasn't near the boundary line on the 25th; we were up at Mary Island.

Q. Yes, pardon me—when it picked you up, anyway—was on the 23rd. Was it day or night?

A. Just before dark.

Q. What time of day?

A. Oh, I am not sure, but I think it was about 7 o'clock,

but I am not sure; along there somewhere, however—5 to 7 o'clock.

Q. How many miles, if you know, were you from Port Simpson when they picked you up—when you were picked up?

A. When we passed Port Simpson?

Q. Yes.

A. Oh, I suppose it would be easy to tell if you take the chart.

Q. How many miles is Port Simpson from the place where the barge was originally picked up?

A. Where the barge was picked up to Tree Point?

Q. Yes.

A. 540 miles.

Q. Do you know how many return trips on a barge you have made through Revillagigedo Channel—approximately?

A. Oh, four or five.

Q. When?

A. Right previous to this, most of them.

Q. What other trips have you made through that channel?

A. Oh, I have towed up in there, and I have been pilot on big boats running to Skagway and I have been captain of boats running through there, and tug boats, too.

Q. As I understand you to say, you have been through there on tug boats three or four times?

A. Oh, it is more than that.

Q. How many times—I mean prior to last March?

A. The previous years?

Q. How many times, about?

A. Well, I couldn't say just exactly.

Q. Two or three times?

A. Oh, yes.

Q. Now, you say you have made 27 trips as master in Alaska?

A. I didn't say in Alaska—I said towing through Seymour Narrows and Queen Charlotte Sound.

Q. But not as far up as Tree Point?

A. No, not as far as Tree Point—I have been through Dixon's Entrance.

Q. Do you know what became of the rest of the shackle that is not here?

A. I presume it must have jumped out of the thimble of the wire that it was on; that is the only way I can account for it—I don't see how it could come apart.

Q. Have you measured the size of that shackle?

A. I never put a rule on it.
Q. You know the size of it, do you?
A. Oh, I can tell from here pretty near the size of it.
Q. What is the size?
A. About an inch and three-quarters—I didn't put no rule on it.
Q. Can you determine the size of the shackle by measuring it?
A. Yes, sir.
Q. Will you do so, please?
A. You have got to get the rest of the shackle; when you measure it you have got to measure it this way (indicating).
Q. I mean the diameter of the iron.
A. An inch and a half.
Q. That is the long way you are measuring?
A. Yes, but it is an inch and a half shackle.
Q. You know it to be an inch and a half shackle?
A. Yes.
Q. Do you know the shape of that shackle originally?
A. Yes, sir.
Q. Could you draw a little sketch of it?
A. I will do the best I can; I am not much of an artist.
Q. Now, we will mark that sketch in the center A—that is substantially a correct representation of the shape of the shackle?
A. Pretty near. As I say, I am no artist.
Q. It is not drawn to a scale?
A. It is not drawn to a scale, no.
Q. Now, what is the length of the pin?
A. A six-inch pin.
Q. What do you call the belly of the shackle?
A. This is the belly of the shackle (indicating).
Q. Up here at B, you call that the belly?
A. Yes.
Q. What was the width of the shackle near the belly, the widest part?
A. It is much wider than it is here; you see it comes around in there and forms in there just enough to let that thimble loose.
Q. The shackle widens out at the belly, does it?
A. A very little, to let the thimble in, you see.
Q. What was the width of the shackle between the line drawn from C to D, approximately?
A. I should say it was three inches or three inches and a quarter.

Q. What was the length of the shackle from the pin up to B?

A. It was an 8 inch shackle—8 or 10 inch.

MR. STRATTON: We offer this sketch as a part of the cross examination of this witness.

MR. GORHAM: No objection.

(Whereupon said sketch was received in evidence and marked Claimant's Exhibit No. 1.)

Q. Did you see the shackle, or what remained of it, after the accident?

A. Yes, sir.

Q. Did you notice its condition at all, or did you just glance at it?

A. No, sir; I examined it.

Q. Did you notice anything peculiar about it?

A. I noticed it was broke.

Q. Notice any blots or dark marks through it?

A. No, sir.

Q. All bright, was it?

A. It couldn't be bright in contact with the salt water—it was stained.

Q. Inside?

A. Certainly.

Q. The salt water will stain a shackle clear through, will it?

A. Clear through?

Q. Yes.

A. Oh, no, it just puts a coating on it.

Q. I am asking you with reference to that part which was broken off, was that bright or dark?

A. It was dull or rusty on the outside.

Q. I am speaking now about the surface that was broken off.

MR. GORHAM: The broken end?

MR. STRATTON: The broken end. That was dark too, was it?

THE WITNESS: You take this very thing and put it in the salt water for four or five hours and it will be a different color.

Q. How long was the shackle in the water after the accident before you saw it?

A. Probably five or six hours in contact with the water.

Q. And that salt water had discolored the ends of that fracture?

A. It certainly will, yes.

Q. Did you notice anything else except discoloration—notice any blots or any breaks?

A. I found a clear break in it.

Q. Just a perfectly clear break. What was the velocity of the wind as you passed Port Simpson?

A. Oh, it was blowing a fresh breeze.

Q. In your best judgment how many miles an hour?

A. Oh, probably twenty-five miles an hour.

Q. And you passed Port Simpson about 5 o'clock on the 25th?

A. Along about there—the early part of the evening.

Q. Did you observe how close to Port Simpson the barge or tug passed?

A. I have an idea, but I didn't take any bearings, or measure it.

Q. Did you have any opinion of it at that time?

A. Yes, I could make a guess on it.

Q. What did you judge—what was your best judgment?

A. Nine or ten miles.

Q. The wind increased, did it, from that time on?

A. Well, it varied; it was increasing and clearing up a little, but it looked like it was going to be a bad night.

Q. And it was a bad night?

A. It wasn't a very good one.

Q. There were snow squalls?

A. Yes.

Q. Dark, thick?

A. Yes, dark and thick.

Q. Could you see the tug all the time from Tree Point up to the time you struck?

A. Yes, she carries a good, big, high light.

Q. And even in a snow-storm you could see it?

A. Well, it wasn't bad so you couldn't see the light—you could see the light but you couldn't see the tug. We couldn't follow the tow line very well.

Q. But you could see the tug all the time—could you see it during the snow squalls, being 1080 feet away from it?

A. I am telling you any of the time I was there I seen it.

Q. How many times were you there?

A. As I say, I must have been up four or five times from the time we passed Tree point.

Q. How long would you stay on deck?

A. I would come up on deck and look around and go back again.

Q. And at those times you were always able to see the lights of the Commodore?

A. Yes.

Q. When you were up those times could you see the land?

A. No.

Q. Too dark to see it?

A. Well, it was snowing.

Q. Were you on the deck at the time you passed Tree Point?

A. I knew we should be at Tree Point and I just come up to look around and I just struck there at the time we passed Tree Point.

Q. Could you see the light?

A. Yes, sir.

Q. How far off were you?

A. I should judge we were in the neighborhood of three-quarters of a mile; I didn't take any cross bearings, or anything like that.

Q. That is your best judgment?

A. Yes, sir.

Q. As a matter of fact the only way you could tell how far away you were from Tree Point was to use your judgment as a seaman, wasn't it?

A. In that condition of weather, yes.

Q. And that is the only way the master of the tug could determine how far he was off from Tree Point, was by using his best judgment?

A. He had a departure from Chatham Sound, I don't suppose it was a very good one, and he had a better chance to follow it up than I did; I didn't interest myself in it very much; I just wanted to see the light.

Q. The captain of the tug, having the previous courses, would be better able to determine the distance the tug was off from Tree Point than you would be?

A. He should.

Q. He could not determine the distance by taking any bearings?

A. No, sir; not in that kind of weather, no.

Q. And at Simpson the wind was blowing east southeast, you say?

A. Probably southeast—a little more to the southerly as it comes out of the channel there, you know.

Q. Probably more from the southeast?

A. Probably, yes.

Q. And how did that strike the tug and the tow?

A. Oh, it would be astern.

Q. Astern, or a little on the starboard quarter?

A. No, it wouldn't if she hauled in toward Port Simpson and hauled out again toward Tree Point, it had a tendency to eddy on the port side.

Q. But after she got to Tree Point—

A. It would have a tendency on the starboard side, certainly.

Q. On the starboard quarter?

A. Yes.

Q. Do you know what effect that would have on the vessel, if any?

A. Any time you run before the wind, if you run one way or the other, she has a tendency to ease up in the wind, certainly.

Q. There was no sea at Port Simpson, particularly, was there?

A. Oh, no, nothing to amount to anything.

Q. Nothing in the weather to indicate that a stop should have been made there?

A. In my judgment, yes.

Q. You think so?

A. Yes.

Q. You didn't make any request of the captain of the tug to stop, did you?

A. Oh, no.

Q. What makes you think that there should have been a stop at Port Simpson?

A. Well, probably it was talking about the situation, but it shows I was right in what did happen.

Q. If they had stopped at Port Simpson there would not have been any accident?

A. It certainly would not have happened that way—I don't think so.

Q. And if the barge had not started from Seattle there would not have been any accident either, would there?

A. Oh, yes, it is very reasonable to think that.

Q. And the snow squalls that you have spoken of continued up until after the accident?

A. Yes.

Q. Did you see Mary Island that night before the accident?

A. Before the vessel broke adrift?

Q. Yes.

A. No, you couldn't possibly see it then.

Q. Did you see the small island that night before the vessel broke adrift?

A. No, I seen it immediately afterwards.

Q. It was so dark it could not be seen?

A. Well, there is a possibility that we were just far enough off of it not to see it; I have an idea how far we was from it when we went adrift, and I don't think you could see that far that night—you could hear farther than you could see.

Q. Looking at this chart, No. 8075, your identification C, you say when you passed Tree Point that night you were three-quarters of a mile off?

A. I figured we were three-quarters of a mile off; I am not saying for sure.

Q. That is your best judgment, that is all?

A. I imagine we were three-quarters of a mile off.

Q. Who laid off this course on here on the line which reads "N.W. ¼ W."?

A. Mr. Gorham and me.

Q. You and Mr. Gorham together?

A. Yes.

Q. That is laid out on a course northwest ¼ west?

A. Yes, sir.

Q. And that course extends from a point abreast Tree Point to a point abreast the light on Mary Island?

A. Yes, sir.

(Whereupon court adjourned until 2 o'clock P. M.)

AFTERNOON SESSION,

November 7, 1917, 2 P. M.

T. FOSTER on the witness stand.

CROSS EXAMINATION (Continued)

BY MR. STRATTON:

Q. Captain Foster, look at Libellant's Exhibit C for identification, and see what this line N to M represents.

A. That is some drawing Mr. Gorham has got on there.

Q. Do you know what it is?

A. I don't know as I actually do; I see there is a course northwest ¼ west—what is that northwest ¼ west?

Q. That is what it says.

A. You will have to get Mr. Gorham to give you the information. I don't know exactly what it is there for.

Q. You said that you and he drew it together?
A. It was laid down there but for what I don't know.
Q. You don't know what that represents?
A. It is a course there represented.
Q. You don't know what it was put down there for?
A. Actually I don't believe I do.
Q. Now, during the noon recess I will ask you if you have drawn on this chart a course starting three-quarters of a mile abreast of Tree Point and running northwest ½ west from 11:19 of the 25th of March to one o'clock A. M. of the 26th of March, the boat going at a speed of about 7½ knots an hour, making a distance of 12½ knots altogether, taking into consideration a deviation of 2 degrees to the east of the compass of the tug Commodore—that would take you to what point, Captain?
A. Excuse me, you asked for a course half a mile off.
Q. I am asking you to give me both. I am speaking about the one ¾ of a mile off; the point A represents what?
A. That is where we finished the course.
Q. Then if you continued that course NW 3.75 miles, the tug making a speed of 5 knots an hour, and continuing on that course three-quarters of an hour—did you draw a line representing that?
A. Yes, sir.
Q. Now, then, that would bring you to the point B, wouldn't it?
A. Yes, sir.
Q. And you took into consideration the deviation of 2 degrees to the east?
A. Yes.
Q. Now, did you also lay down on the chart the course of the Commodore, commencing at half a mile abreast of Tree Point and going on the same courses that you did on the line R-B?
A. Yes—this was the course you gave me—I didn't say anything about the course of the Commodore; this is the course that you suggested.
Q. The course that is shown on this line?
A. On this line, yes, sir.
Q. And if she was going the same length of time on the first course and the same length of time on the second course it would take you to point E on the chart, would it?
A. Yes, sir.
Q. Would they be proper courses, Captain, to take from that point?
A. Any one of them would be a good course if it was

looked after; I don't see it is necessary to change it so often; any one course will take you up there.

Q. But either of those two courses is a good course?

A. I can't see where you call that a good course; there has been a mistake made in it—it has been altered.

Q. I say that either one of these is a good course to take your vessel on?

A. After the change made here in the two different places? You have three different courses on each one.

Q. But the course marked—

A. It would be better if it was only one course which would take you clear.

Q. You think it would be better then, for instance, on the course line F-D-E—you think it would be better if the course was not changed at D—is that what you mean?

A. No.

Q. What do you mean?

A. Why is it necessary to change it at all? Why not make a direct course from Tree Point?

Q. What course would you take?

A. Whatever that course was—I don't know what it was.

Q. You drew these lines?

A. At your suggestion I drew them, yes.

Q. And you drew this line F-D on a course of northwest ½ west, taking into consideration in drawing the line, and making allowance for a deviation of a ship's compass 2 degrees to the east, didn't you?

A. Yes, sir.

Q. Is that the proper course to pursue to that point D?

A. Why is it necessary to pursue any course to point D? We are not bound for point D—we are going for this light house.

Q. All right. We are bound to pass Mary Island in a clear place.

A. In a safe condition.

Q. I am asking you if that was a proper course to pursue from F to D?

A. What is the idea of changing the course when it is not necessary?

Q. I am asking you about the whole line. I am asking you if this is a safe course to pursue from F to D?

A. No, I wouldn't steer that course.

Q. What course would you steer?

A. Northwest ¼ west. I would take this position and apply the deviation.

Q. If you were ¾ of a mile abreast of Tree Point your course would be what?

A. North ¼ west.

Q. And you would clear Mary Island?

A. Yes—you have to take your compass and apply the deviation afterwards.

Q. Knowing that the tug's compass had a deviation of 2 degrees to the east, what course would you have pursued if you had been ¾ of a mile abreast of Tree Point?

A. I would have steered northwest ¾ west—northwest ½ west or northwest ¾ west—that is, with 2 degrees' deviation.

Q. In other words, you have pursued this course from F to D clear through?

A. Oh, no.

Q. I am speaking now of starting on a course one-half mile abreast of Tree Point. I will ask you the question again. If you were on the Commodore and the deviation of the compass was 2 degrees to the east, and you were to start half a mile abreast of Tree Point, what course or courses would you have streered under the conditions of the tide and wind which have been given to you, in order to pass Mary Island in a proper place?

A. Well, if we were steering while I was watching the compass and the man was making a good steer, I would steer about northwest ½ west.

Q. Clear through?

A. Yes, clear through.

Q. Clear through past the island?

A. Yes.

Q. Now, will you take the rulers and extend this line already on there northwest ½ west clear through to see where it would bring you?

A. Northwest ¼ west, isn't it?

Q. No, you said just now you would steer northwest ½ west—that is what it is on this line.

MR. GORHAM: No, you are mistaken—he said northwest ½ west with a deviation of 2 degrees.

MR. STRATTON: That is what I told him to take into consideration. All he has to do is to extend the line.

THE WITNESS: What course is this now?

Q. (By Mr. Stratton): This is the course northwest ½ west with a deviation of 2 degrees to the east. Then the line which you have just drawn and which you say would

be a proper course, would bring you right into Mary Island, wouldn't it?

A. It would put you to the light.

Q. It would put you into Mary Island before you reached the light, wouldn't it?

A. There is something wrong there.

Q. Northwest ½ west, with a deviation of 2 degrees to the east.

A. Northwest ½ west or northwest ¼ west?

Q. Northwest ½ west.

A. 2 degrees—how is that?

Q. You said, Captain, didn't you, that if you were three-quarters of a mile—

A. No, one half a mile.

Q. One-half mile off Tree Point, and under the condition of the weather that night, in order to get a safe clearance of Mary Island, that you would run on one course and that course would be northwest ½ west, taking into consideration the deviation of 2 degrees to the east, of the compass?

A. That is what my course would be.

Q. Then you drew this line northwest ½ west with a deviation of 2 degrees, 12½ miles to D—you drew that line during the noon hour, didn't you?

A. Yes, sir.

Q. And that is correctly drawn on the chart, isn't it?

A. No, it is not.

Q. Well, you drew it. If that is incorrect, correct it—you drew it during the noon hour.

A. What have I got to do in navigating the Commodore? If you want me to take—

Q. I asked you if you drew the line during the noon hour that I just mentioned?

A. Yes, I did.

Q. Was it correctly drawn on the chart? You said it was drawn during the noon hour, didn't you, Captain, and they are all your marks and not ours?

A. I guess I drawed it.

Q. Well, then, if that was the proper course, and you say you would have continued that course throughout, it would land you right into Mary Island, south of Mary Island light, wouldn't it?

A. Yes, the light, yes.

Q. Then that would not have been the proper course, would it?

A. No, it don't look like it.

Q. If instead of running on the same course from D

until you struck Mary Island light you changed your course to northwest, still taking into consideration the deviation of 2 degrees, you would reach the point A, would you not?

A. Yes, sir.

Q. And that would be a proper course to pursue wouldn't it?

A. It looks like it.

Q. Now, how far is H from the light?

A. A mile and a quarter.

Q. H then, would be a mile and a quarter off or abreast of the Mary Island light?

A. Yes.

Q. And that would be a safe distance?

A. Yes, that is right.

Q. Now, Captain, assuming that the Commodore was three-quarters of a mile abreast of Tree Point, taking the same courses and the same distances that we have mentioned when you were starting half a mile off, where would that bring you?

A. It would bring you much handier to the light.

Q. In other words, that would bring you out at C, which is a mile from the light?

A. Yes.

Q. That is a proper course too, isn't it?

A. Yes, sir.

Q. Now, Captain, if instead of laying out these two courses that you have been testifying to—that is, F-D-H and R-A-C, you had not taken into consideration the 2 degrees deviation to the east, would that make any appreciable difference in the course?

A. Make some.

Q. How much?

A. Very little.

Q. Any appreciable difference?

A. Oh, no.

Q. It would be a perfectly safe course, wouldn't it?

A. Yes, it would be safe all right in clear weather.

Q. If you had not taken into consideration the deviation of the compass of 2 degrees to the east, how close to the island would you have come at point C?

A. Probably clear it a quarter of a mile or half a mile.

Q. I wish you would show that on this map—show a deviation of 2 degrees which if not taken into consideration would make a difference of one-half a mile.

A. Take the northwest course and lay it off,—I will show you where it would come to—here is the line, see?

Q. Now, extend that line, Captain, out abreast of the Mary Island light.

(The witness does so.)

Q. Now, that would take you past point K. How far is K from Mary Island light and from Mary Island?

A. It is in the neighborhood of three-quarters of a mile.

Q. That is a good clearance, isn't it?

A. Sufficient.

Q. Perfectly safe; in fact, the water is deep and safe for navigation right up close to the island, isn't it?

A. In some parts—not right to the north of the light, it would not make quite that difference.

Q. In other words, the vessel would be more than three quarters of a mile off Mary Island light?

A. A good three-quarters.

Q. Now, you were on the deck of the barge at the time you reached Simpson?

A. I was writing a letter, I believe, to Mr. Mylroie when we passed Simpson.

Q. That is not an answer to my question.

A. I was on the ship—I had not turned in.

Q. You said the vessel was nine or ten miles off Port Simpson?

A. Probably she was; I don't know just exactly how far she was; I wouldn't say.

Q. That is your best judgment?

A. Something like that.

Q. Was it snowing at that time?

A. I wouldn't say it was snowing.

Q. Could you see the land?

A. Yes.

Q. You could see Port Simpson?

A. Yes.

Q. Do you know the course the vessel took from Port Simpson to Tree Point?

A. No, sir; I didn't pay any attention to it.

Q. Do you know the course the vessel took from Tree Point to Mary Island?

A. No, I don't.

Q. Do you know what course the vessel took from Tree Point to where you landed at Mary Island?

A. No, I don't; we ain't supposed to do that—we are at the mercy of the tug, and we left it to her.

MR. STRATTON: I didn't ask the witness that, and I move to strike out that portion of the answer which is not responsive.

THE COURT: I will take that into consideration when I go to pass on the case.

Q. Did you see the light at Tree Point?
A. Yes, sir.
Q. And you figured you were three-quarters of a mile off, as you stated?
A. It might have been that; I didn't take a great interest in it—I seen the light.
Q. How was the weather at Tree Point?
A. It was getting worse all the time.
Q. Where did you next see land?
A. That little island.
Q. How far were you from the little island when you first saw it?
A. Oh, probably—
Q. I mean how far was the barge from it?
A. Probably 500 or 600 feet.
Q. What was the condition of the weather with regard to the ability to discern objects some distance off at that time?
A. Oh, I have seen it worse and I have seen it better.
Q. Was the land obscured all the time, or merely at times on account of the snow squalls?
A. After I made the island I never lost sight of it; of course we were getting handy to it all the time.
Q. How was the tug headed—toward that small island—was she headed straight for it?
A. We were seven or eight hundred feet behind the tug, and we were going pretty straight for it.
Q. You were following the tug, were you?
A. Oh, yes.
Q. And you say you were five or six hundred feet from the island when you saw it?
A. The tug couldn't have been very far from it; we were seven or eight hundred feet behind the tug.
Q. How far was the tug from the island when you first saw the island?
A. She had got away then.
Q. Then, you didn't see the island before the shackle broke?
A. No.
Q. You had been below?
A. Yes.
Q. Now, if the courses as you have testified to on this chart F-D-H and R-A-C were proper courses, as you have

said they were, how do you account for the Commodore find ing herself headed for the small island east of Mary Island

MR. GORHAM: Now, if the Court please, we do no think counsel has asked a fair question. He has put som courses on a chart—whose courses they are and wha courses they are does not appear; there is no evidence as t what those courses represent, so far as this lawsuit is con cerned. He simply says if the vessel starts at F and pur sues this course F-D-H it will take the vessel clear of th island, or if he pursues the other course, that will take hin clear of the island—we do not think that is fair.

THE COURT: I cannot see any connection between thi question and the former testimony of this witness.

Q. If those are proper courses, and the vessel wa steered on those courses, how do you account for the vesse being found up against that small island east of Mary Island

A. It is impossible for to get there if them courses ha been steered.

Q. It was?

A. I cannot see how she would get there if she steere on those courses; it is two miles and a quarter through there to where that vessel went ashore, and she didn't drift tw miles.

Q. Did you measure it?

A. Well, she didn't drift two miles.

Q. You have no explanation then to make why the vessel if she steered the courses mentioned, ran up against this litt island east of Mary Island?

A. I cannot see how she would get over there if sh steered them courses and she steered true and correct.

Q. Do you know whether there are any currents up in th Revillagigedo Channel going from Tree Point to Mary Is land?

A. Well, as far as I know, my information, any curren will set up; the inlets will draw them in when the tide i running out, and it is sure to set up.

MR. GORHAM: You say out—you mean to the east ward?

A. Yes.

Q. (By Mr. Stratton): What has been your experience in reference to finding currents up in that Revillagigedo Channel at different stages of the tide?

A. I learned more this trip than I ever did in my life before.

Q. What did you learn?

A. By watching the tides there, and from what information I had from men employed around there on the gasoline boats.

Q. You need not tell what information you got from any of them.

A. It will always draw on a flood tide and set up across on the ebb—have a tendency more so on the ebb tide than flood.

Q. Your opinion is that a tide when it is flooding sets to the north in Revillagigedo Channel?

A. Sets up here (the witness indicating Boca de Quadra).

Q. Sets up in which direction?

A. These inlets, of course, which is the east; right here (indicating).

Q. That is just what you have heard?

A. Yes.

Q. You don't know anything about it yourself?

A. I know they set up here.

Q. What direction does the tide set, to your personal knowledge, when it is flooding, up in Revillagigedo Channel? If you know, answer the question; if you haven't any personal knowledge of it, don't answer.

A. I haven't any information at this time, but I know the ebb—I seen it the other day, the ebb.

Q. I am asking you the flood tide. Do you know or don't you know which way the flood tide sets?

A. I feel satisfied it sets that way.

Q. Which way?

A. North—has a tendency that way.

Q. North?

A. North and east.

Q. You say you are satisfied—

A. Of course, because it is up in these inlets, and that would take the tides up; it is coming up here and there is always a certain suction from here to here (indicating).

Q. That is your belief, because you know there are some inlets up there?

A. You can see that yourself.

Q. I mean that is not your testimony from anything you have seen or observed youself, but simply from the fact that there are inlets up in there?

A. That is enough to convince me.

Q. I see, but that isn't answering my question. I say you don't have it from actual information of your own, but

from your opinion formed because there are inlets in which the tide will flood?

A. That is enough to satisfy me.

Q. Is that all the information that you base your opinion on?

A. Yes, from towing and the experience I had up there. I know of boats that was brought up on that island just the same way.

Q. Just the same way as this one was?

A. Just the same—that is my idea.

Q. It is a frequent occurrence in going from Tree Point, especially in the winter time when it is stormy weather, to find boats here on Mary Island, isn't it?

A. They get stuck pretty often.

Q. Good navigators do it too, don't they?

A. They come along.

Q. Have you never heard of vessels going on there frequently?

A. I don't know; I know big vessels have gone up there and never been disturbed.

Q. They put their helm to port to get clear of the island?

A. Yes.

Q. Captain, might the fact that the Commodore ran up close to that small island east of Mary Island, as you have stated, be accounted for by an error in judgment as to the distance the tug was off Tree Point when you passed it, not being able to get bearings at that point?

A. I considered that she had a good departure from Tree Point.

Q. Captain, will you answer the question, please—answer the question. (Question read to the witness)—Answer that yes or no.

A. Do you mean to say that she had a good departure from Tree Point and that is the reason she hit up here? I cannot understand the question.

Q. I will ask it another way, then, Captain. Assuming that the master of the tug believed he was half or three-quarters of a mile off Tree Point when in fact he was farther off than half or three-quarters of a mile, not being able to get any bearings, as you have said, would that account, steering the courses you have mentioned, for his running into that small island east of Mary Island?

A. It would have a tendency to, yes.

Q. So you believe that getting so close to the island there may be accounted for by an error on the part of the captain of the tug in believing that he was half or three-quarters of

a mile from Tree Point when as a matter of fact he was farther to the westward?

A. It could happen that way, yes.

Q. And the farther west of Tree Point the tug was the closer it would take him to Mary Island if he steered on the courses F-D-H and R-A-C?

A. It would have a tendency to, certainly.

Q. Do you know how high the tide rises in Revillagigedo Channel?

A. It rises pretty high sometimes—it rose pretty high while we were there.

Q. That is not any answer to the question. Do you know how high it rises?

A. It rose 17 or 18 feet the night we were there.

Q. Between high and low water?

A. 12 foot is a good ordinary tide.

Q. Do you know what the tide was that night?

A. The tide rose three or four feet above high water that night.

Q. Then the difference between high and low water in the morning when this accident occurred was about 18 feet, wasn't it?

A. 17 feet—the tide rose three or four feet after high water.

Q. Do you know what the velocity of the current was in Revillagigedo Channel between 11:19 and 1:45 the 25th and 26th of last March?

A. No, I wouldn't say I do; I didn't look it up.

Q. Do you know what the velocity of the tide is there at any time?

A. Yes.

Q. What is the velocity of a full tide?

A. On spring tides from one to one and a half knots.

Q. And on other tides?

A. Probably half a mile or a mile.

Q. What in your opinion was the velocity of the tide the night of this accident?

A. Oh, I suppose it was a mile and a half or two miles an hour; of course I have nothing to prove that by only what the tide tables give me, and working on it.

Q. Now, you say you were down in your room at the time you felt a jar?

A. Yes, sir.

Q. What time of the day was it when you felt the jar?

A. That was in the morning along about 11 minutes to

two—twelve or eleven minutes to two—somewhere along there.

Q. That would be eleven or twelve minutes to two. Describe how you felt the jar, or what made you think there was a jar.

A. You can easy tell if the ship is running along free; if there is any jar or any unusual shear on the tow line you can always feel it.

Q. Do you know how long before that the Commodore had changed her course?

A. No—you see the change was a very slow change according to that there, and I didn't know it.

Q. You don't know how long before you felt this jar that the Commodore had changed her course?

A. Oh, I understand what you are getting at now. You mean at the time of the accident?

Q. No. You say you felt the jar at eleven or twelve minutes before two o'clock?

A. Yes, along there; I might be out a few minutes.

Q. Certainly. Do you know how long before that time the tug had changed her course the last time?

A. Immediately, right at the same time she changed her course.

Q. At the same time she changed her course?

A. Yes.

Q. How do you know?

A. Because I could tell that she changed her course.

Q. Were you at the wheel?

A. No.

Q. You were down below?

A. Yes.

Q. Then how do you know?

A. I can hear the wheel working—I can hear the men working the wheel, and I could hear the swish of the rudder under the ship, and I knew she had come around to the wind.

Q. How long before the shackle broke did you know that this change in course had taken place—how many minutes?

A. Before the shackle broke?

Q. Yes.

A. They all happened right together—the whole thing happened pretty quick; I cannot tell you how many minutes it was, or seconds.

Q. Was it minutes or seconds?

A. It was a very short time.

Q. But the tug changed her course before the shackle broke?

A. Immediately—at the same time.

Q. Do you know to what extent the tug changed her course immediately before the shackle broke, as you stated?

A. Well, I should say she changed her course 80 or 90 degrees.

Q. What gives you that idea?

A. By the position of the tug-boat and the barge when I got up.

Q. When you came out the shackle had been broken how many minutes?

A. About as long as it would take me to walk from the other end of that table—at least that is my idea.

Q. You were down in your room at the time you felt the jar?

A. Yes, sir.

Q. That was the time the shackle broke, according to your opinion?

A. That is what I think, yes.

Q. When you felt the jar you still laid in your bed, didn't you?

A. Yes.

Q. You didn't consider that anything had happened?

A. No.

Q. And you saw no reason for going on deck?

A. No.

Q. And you laid there until the man at the wheel came down?

A. No, he went back and slammed the door, and then I heard him open the door again and I thought there was something wrong and I started out.

Q. Didn't he get down to your room and didn't you have a conversation with him and send him back to the wheel?

A. He never was in the room—he came to the door.

Q. Didn't he came to the door—

A. The first time.

Q. And say something to you about something being wrong?

A. He said there was something wrong, and went right back.

Q. Went right back up on deck again and you stayed in your room?

A. Yes.

Q. And after that he started to come back again to your room?

A. He started to come back, but he never left the pilot-house; he got as far as the pilot-house door, and I beat him to it.

Q. And then you came up?
A. On deck.
Q. How long was it after you felt the jar that you cam out on deck—how many minutes would that take you?
A. A minute and a half or two minutes probably—on right after the other; they happened one right after th other as close as you can get them.
Q. When you came on deck a minute or a minute an a half after you felt the jar, where was the tug?
A. On the starboard side—right ahead on the starboar side.
Q. She had put her helm hard over and was making circle to get back on the same course she had come up?
A. They hauled off the island.
Q. On a 90 degree curve?
A. Probably 80 or 90 degrees, something like that.
Q. And your judgment was the helm was hard over?
A. Yes.
Q. How far was the tug from the barge, in your opinion when you saw the tug immediately after going on deck- when you first saw the tug immediately after going on deck
A. Oh, she was a couple of cable lengths.
Q. And a cable is how long?
A. A cable is 120 fathoms—it wasn't any more tha that, if it was that.
Q. What do you mean by the cable?
A. The cable is—
Q. You mean the tow line?
A. No, you asked me what distance she was ahead an I said probably a couple of cable lengths.
Q. What is the length of a cable?
A. A cable is 120 fathoms.
Q. That would be 1440 feet she was away?
A. 240 feet—it would be 6 times that.
Q. That would be 1440 feet.
A. It wasn't that far away—to tell the truth, after seen she was broke away and was leaving us I was payin more attention to the barge than I was to her.
Q. She didn't leave you, did she?
A. She didn't come back very quick.
Q. She came back for the purpose of throwing a lin to you and keeping you off the island, didn't she?
A. Well—
Q. She came back for that purpose, didn't she?
A. I don't know what she came back for.
Q. She came back to you, didn't she?
A. She came back to that neighborhood.

Q. And she came back as soon as she could?

A. That is a difference of opinion—I guess she did.

Q. And she couldn't throw a cable to you because she couldn't get close enough to the island on account of the depth of water, is that a fact?

A. The conditions wasn't favorable for her to get there.

Q. You testified on a former occasion in this case, and didn't you make this statement: "Oh, I seen her," referring to the tug, "before we went ashore. I seen her after the anchor was let go. She was outside of the small island. She came in as far as it was safe for her to come." Did you say that?

A. Yes, that is my opinion—yes.

Q. And wasn't this question asked you: "But could not reach you?" And didn't you answer to that: "No, sir"?

A. That is plain, yes.

Q. You say you didn't hear any whistling that night?

A. No, sir.

Q. Was the weather such that there was any occasion under the navigation rules for blowing a whistle between Tree Point and the time you sighted the island?

A. Well, there was one occasion that I know of it should have been blown.

Q. One occasion?

A. Yes; when they broke away from us they should have let us know that we were standing in some kind of danger.

Q. And that is the only time, after the shackle broke—after the shackle broke is the only time that you know of when the tug should have blown the whistle?

A. No, I am not saying that.

Q. What are you saying?

A. I say that time I know she should have blown and didn't blow. It was up to them if they wanted to blow before that.

Q. And so far as you know there wasn't any occasion for blowing the whistle at any time before the shackle broke?

A. I was not operating the tug; what they would do and what I would do is a different thing.

Q. That is up to their best judgment?

A. Sure.

Q. Then you would not say that the tug failed to blow the whistle any time that she should have blown it, would you?

A. They are navigators, and it is up to them to do that kind of a thing.

Q. You have no opinion on that?

A. If I was in that position myself I cannot tell you what I would have done.

Q. You would act according to your best judgment as things appeared to you at the time wouldn't you, Captain?

A. Certainly.

Q. And that is what all good seamen do?

A. Yes.

Q. Now, you say you threw the anchor out?

A. Yes.

Q. How long was it after the shackle broke that you threw out your anchor?

A. It wasn't very long—it is pretty hard to tell—I suppose it was 8 or 9 or 10 minutes—in that neighborhood.

Q. How far had you drifted towards the island in those 10 minutes?

A. I let the anchor go inside of the island, not outside of the island.

Q. So do you mean to say that you let the anchor go 10 minutes after the shackle broke?

A. Well, probably 10 or 15; along there in that neighborhood. I didn't take no time of it. In looking back I should say it was along in that neighborhood; it might be a little longer; I don't think it was any shorter.

Q. What speed was the barge going at the time the shackle broke?

A. She must have been going pretty good to make that distance in the time she did—five or six miles an hour.

Q. And she drifted then for 15 minutes? Going at 5 or 6 miles an hour—15 minutes would be a quarter of an hour—and if the vessel was going as you say 6 miles an hour, then the barge drifted a mile and a half before you put out your anchor?

A. She was going in broadside with the wind and the sea.

Q. You said she was going with the wind.

A. That was when she was towing.

Q. You said you let the anchor go when you were inside of the island, didn't you?

A. Yes, sir.

Q. And you said it was 10 or 15 minutes after the shackle broke that you dropped your anchor, didn't you?

A. It was in that neighborhood.

Q. And you said the barge at the time the shackle broke was going 5 or 6 miles an hour, didn't you?

A. That hasn't anything to do with the anchor.

Q. I will ask you if you didn't say that at the time the shackle broke the barge was going 5 or 6 miles an hour?

A. That is my idea, yes.

Q. Then, if that is true, the barge must have drifted a mile and a half after the shackle broke before you dropped the anchor?

A. No, you have got that wrong.

Q. If I have, make it right.

A. When the shackle broke the ship was put to port—she is in the trough of the sea, she has lost her head, and she is going sideways with the wind.

Q. What ship?

A. The barge; the minute she come up in the trough of the sea she stopped—she is helpless—she is rolling.

Q. You think her headway was impeded by putting the wheel hard aport immediately after you found the shackle had broken?

A. We tried to get clear of this little island there; I knew the land was on that side, and I wouldn't put her starboard and go right to it, would I?

Q. I am not asking you that. Now, if you dropped your anchor 10 or 15 minutes after the shackle broke, how far in your opinion had you drifted between the time the shackle broke and the time you cast your anchor?

A. Probably 800, 900 or 1000 feet; not any more than that, I don't believe; I never measured it down there afterwards.

Q. Your vessel, at the time the shackle broke, was immediately behind the tug, wasn't it?

A. Behind the tug-boat?

Q. Yes. It was following the tug immediately behind, wasn't it?

A. Yes.

Q. And your hawser was 180 fathoms or 1080 feet, wasn't it?

A. That is what I understand.

Q. The tug got clear of the island, didn't she?

A. Yes.

Q. Because she ported her helm and made a turn?

A. Yes, sir.

Q. And how far was the tug from the island at the time she ported her helm to get away from it?

A. I couldn't tell you that right down in degrees—I have an idea she wasn't very far.

Q. How far do you think?

A. I don't think that she was more than 75 or 100 feet—probably along in there.

Q. So if the water is deep right there at that little island—

A. I found afterwards it was deep.

Q. And if the tug could have made that turn in 75 or 100 feet, could it have cleared the island?

A. She would have made it but she would have been pretty close on to it.

Q. I asked you if the water is deep right there at that little island and the tug could have made that turn in 75 or 100 feet, could she have cleared the island?

A. 75 to 100 feet off it, yes, but it would come pretty close to it.

Q. So you think the tug was only 75 or 100 feet away from that small island at the time the shackle broke?

A. I am not saying she was; I was not on the tug. That is my idea, but I wasn't paying much attention to it.

Q. You could see the island, you say, from the barge when the shackle broke?

A. No, sir.

Q. You couldn't see it?

A. No, sir; I could hear the breakers, but I couldn't see the island.

Q. Were there breakers?

A. There were some.

Q. How far do the breakers extend out there?

A. The island, there is a reef to the north and also to the westward, and the east it is quite bluff because we were quite close to it.

Q. Then your opinion is that the master of the tug did not see that small island until he was 75 or 100 feet away from it?

A. I don't know when he seen it; I am not expressing my opinion of what he seen.

Q. He either did not see it until he was 75 or 100 feet away from it, or he continued to run into it, is that true?

A. I don't know what he done; I am telling you what I done.

Q. If he saw it before he was 75 or 100 feet away from it and he made the turn when he was only 75 or 100 feet from the small island, then he must have continued to run towards it after he saw it, isn't that true?

A. I don't think he run towards it after he saw it at any time; I don't see why he would.

Q. Do you pretend to say how far the tug was away from that island when the master of the tug changed its course so as to avoid the island?

A. Well, it would be foolish to say that; I cannot tell; I am only giving you the facts that happened on the barge when the tug boat broke away.

Q. You said it was about 2 o'clock when the barge first struck?

A. I didn't say it was about 2 o'clock; it was after 2 o'clock; she struck along in that neighborhood—I wasn't giving much attention to the time then—I was looking after the barge.

Q. What did she strike?

A. A rock.

Q. One of the rocks outside the small island?

A. Oh, no, inside.

Q. Did she ground immediately upon striking that rock?

A. No, sir.

Q. How much after 2 o'clock was it when the barge first struck?

A. She grounded at 4 o'clock; I know that she struck several times before that.

Q. What time did she first strike?

A. Probably 3 o'clock—she drifted in between another small island and the rock, and I think she struck on that when she was going in.

Q. Your best judgment and opinion at this time is that the barge first struck about 3 o'clock?

A. Yes.

Q. And that it was a rock that she struck?

A. It was a rock, yes.

Q. Was there any perceptible jar at that time?

A. Oh, yes; we were expecting her to strike.

Q. And after she first struck what happened to her? That is, when she first struck at 3 o'clock what happened to her?

A. The wind increased a little bit and a squall came up and she started to drift in, and she got in between another island and a ledge of rock—I don't know how she got in between them; it was a particularly high tide that she got in there, and at extreme high tide a big undertow caught her and picked her up and put her there and she stayed there.

Q. You say the barge was pulled off by what boat?

A. I didn't say she was pulled off by any boat.

Q. You said the gas boats pulled her off, didn't you?

A. No.

Q. Who pulled her off the beach?

A. I had a couple of anchors out; one anchor I hove right away, and as the wind drove her in I hove her other anchor.

Q. In other words, she floated by aid of the anchors?

A. Yes, we had them out there to keep her from going out any further; the wind hove her in and on high tide we naturally backed her off.

Q. What did the gas boats do?

A. At that time I couldn't haul her out through the channel, so I swung around in that bite with a gas boat to her nose and finally hauled her around until she was clear of the rock, and then I told the gas boat to throw back the hawser.

Q. The gas boats were able to get in where the barge was and the Commodore was not?

A. Yes.

Q. And the Commodore towed her to Ketchikan?

A. Yes.

Q. And the Commodore stayed by the vessel all the time, didn't she?

A. It was anchored out at the rocks, yes, sir.

Q. Giving all the assistance possible at all times?

A. She hauled once or twice on the anchor.

Q. How close to Mary Island is it possible to navigate? It is deep water all the way there, isn't it?

A. Oh, some parts of it; half a mile off it's safe.

Q. When did you first hear the breakers that night, if you heard any.

A. I heard them immediately after I came on deck.

Q. Did you see them at all?

A. I could just recognize them immediately afterwards, yes.

Q. And you say you were how many feet from the island at that time—on the barge?

A. I said from the time I let the anchor go we was probably three or four hundred feet.

Q. You saw the breakers at three or four hundred feet?

A. No, I heard them first; we was still going in, you see, all the time.

Q. How far were you from them when you first heard them—your best opinion?

A. Probably five or six hundred feet.

Q. You were five or six hundred feet when you first heard them. Could you see them when you first heard them?

A. Probably if I had looked I could—no, I didn't; I heard them first.

Q. But you say you could have seen them if you had been looking?

A. I don't imagine I could; I know I heard them first.

Q. Could you see the island when you first heard the breakers, when you were about five or six hundred feet away?

A. You could not see the breakers breaking on the surf, because the land was covered with snow. The land is pretty near the same color as the surf, and it is pretty hard to distinguish the land from the surf.

Q. Then you could see the surf as soon as you could see the land?

A. No, I could see the surf first.

Q. You could see the surf before you could see the land. You say there was snow on the island, isn't that right?

A. Yes, sir, snow on the land.

Q. There was snow up there that night?

A. Yes, sleet.

Q. And it was so heavy that it was snow white?

A. The tug was covered with snow.

Q. I am speaking of the island now?

A. Certainly there was some on the island; there was some snow on it—not very much—a little.

Q. Did you have a light in your cabin?

A. No, sir; very seldom have one at all.

MR. STRATTON: That is all.

RE-DIRECT EXAMINATION

BY MR. GORHAM:

Q. You were asked when the tug changed her course?

A. Yes, sir.

Q. You said that you knew when the tug changed her course?

A. That depends on what time.

Q. Just at the time of the breaking of the shackle?

A. Yes, she must have changed her course then.

Q. Did you have any personal knowledge of the change of course?

A. No, only what my own judgment gives me; I know that she changed her course and the wheel put over by the sound of the water coming up under the ship.

Q. Under the barge, you mean?

A. Yes.

Q. You have no personal knowledge of the tug changing her course?

A. I had nothing to do with the tug.

Q. You say there was no occasion for whistling that night?

A. I didn't say there wasn't no occasion.

Q. What are the rules for the prevention of collisions at sea and inland waters with respect to whistling in snowstorms?

MR. STRATTON: I think the rules are the best evidence—I think that is immaterial.

THE COURT: I think the printed rules would be the best evidence.

Q. Now, you say the barge broke adrift about 10 minutes to 2?

A. About that neighborhood.

Q. Then you say she first struck at 3 o'clock?

A. That is when it struck the bottom, yes—along in that neighborhood.

Q. Then it was an hour and 10 minutes before she struck, is that right?

A. In that neighborhood.

Q. Had she struck any obstruction in the water prior to that time?

A. No, sir.

Q. Nothing at all?

A. From the time I let the anchor go until she began to take the beach, I would say it was in the neighborhood of an hour and a quarter, or something like that.

Q. Had she struck the reef prior to the anchor being lowered?

A. No.

Q. You say the tug hauled once or twice on the barge—did it move the barge?

A. No.

MR. GORHAM: That is all.

RE-CROSS EXAMINATION

BY MR. STRATTON:

Q. You said just now that the barge put her helm over to port immediately after the shackle broke, didn't you—just now?

A. Well, all at the same time.

Q. Why did the barge put her helm aport?

A. Following the tug boat.

Q. You were 1080 feet away from the tug boat, weren't you, at the time the shackle broke?

A. I don't know how much hawser was out.

Q. Assuming there was 1080 feet of hawser out, you were 1080 feet away from the tug boat at the time the shackle broke, weren't you?

A. If he had that much out.

Q. How did the barge know—I mean the man at the wheel of the barge know that he should put his helm to port?

A. His orders is to follow the tug boat.

Q. Then he must have seen the tug boat at 1080 feet just as soon as the tug boat put her helm over?

A. I seen the lights when I came out on deck—he certainly must have seen them.

Q. So he saw the lights of the tug boat at a greater distance than he could hear or see the surf, is that right?

A. There may have been a clear streak come up at that time. Any time you cannot see the lights on the tug there is a man put forward to con the ship; it wasn't necessary to put a man forward to con the ship that night, but it was just light enough so you could see to steer by.

Q. How would the man at the wheel of the barge know from looking at the lights of the tug on a dark night like that, that the man at the wheel of the barge should put his helm aport?

A. How could he know?

Q. Yes—why would he know?

A. As I told you, the man sees she is changing her course by the masts and the lights, and so he changes his course, too.

Q. And the man on the barge is supposed to—

A. Supposed to follow the tow line.

Q. And on a night like that he is supposed to get his information by looking at the light on the tug to see which way the tug is going to change, and he does accordingly?

A. There is an electric light right at the top of the mast and he is supposed to follow that, and follow the tow-line.

MR. STRATTON: That's all.

MR. GORHAM: That's all.

(Witness excused.)

A. W. MYLROIE, the libellant herein, upon being recalled for further cross examination, having been previously duly sworn, testified as follows:

CROSS EXAMINATION (Cont'd.)

BY MR. STRATTON:

Q. You stated, Mr. Mylroie, that the tug Commodore towed your barge Bangor?

A. Yes, sir.

Q. Commencing on the 22nd day of March last?

A. The 22nd? I don't think that is the date she took hold of her; I think it was the 21st.

Q. You had a written contract for that tow, didn't you?

A. Yes, sir.

Q. I will ask you to examine that and state whether or not it is the original contract.

A. Yes.

MR. STRATTON: We offer that in evidence as a part of the cross examination of this witness.

MR. GORHAM: No objection.

(Whereupon said contract was received in evidence and marked Claimant's Exhibit No. 2.)

MR. STRATTON: We call upon the libellant to produce the original letter written by the respondent, dated March 22, 1917, addressed to Mr. Mylroie.

(Said letter is produced and handed to Mr. Stratton.)

MR. STRATTON: We would like to have these letters marked for identification.

(Whereupon two letters, one dated March 15, 1917, addressed to the B. C. Tug and Barge Company, Vancouver, B. C., and signed A. W. Mylroie, and the other letter dated March 22, 1917, addressed to the Anchorage Supply Company, Seattle, Wash., and signed by B. C. Mills Tug & Barge Company, L'td., were marked respectively Claimant's Exhibits 3 and 4 for identification.)

Q. I show you Claimant's Exhibit 3 for identification and ask you if that is your signature?

A. Yes, I recognize this.

Q. Did you send that letter to the claimant in this cause?

A. Yes, I did.

Q. By mail?

A. By mail.

MR. STRATTON: The claimant produces the letter just identified by the witness and offers it in evidence as a part of the cross examination of this witness.

MR. GORHAM: I don't know, if the Court please, whether they should not identify the letter and reserve it until they reach their case. It is certainly no part of our case—it is a part of their defense.

MR. STRATTON: Our position is this, that there was an agreement to tow; we have shown by this witness on cross examination what this agreement was and what they are suing on, and we are offering the agreement and his construction of the agreement, which is a part of the cross examination.

MR. GORHAM: We have no objection to the contract itself going in on cross examination, although it is not proper cross examination. We do object to this letter going in at this time; he was not interrogated on direct examination with reference to this contract.

MR. STRATTON: We have a right to show the general conditions of this contract on cross examination.

THE COURT: It will be admitted.

MR. GORHAM: We take an exception to the Court's ruling.

(Whereupon said letter was received in evidence and marked Claimant's Exhibit No. 3.)

Q. Now, I show the witness claimant's exhibit No. 4, for identification, and will ask you if you received that letter on or about its date, from the claimant?

A. I think it is a duplicate copy of the one I received.

Q. A duplicate copy—isn't it the original? We demanded the original. Your attorney just produced it as being the original letter.

A. Yes, this is the original letter.

MR. STRATTON: We offer that in evidence.

MR. GORHAM: The same objection—it is not proper cross examination.

THE COURT: It will be admitted.

MR. GORHAM: We take an exception to your Honor's ruling.

(Whereupon said letter was received in evidence and marked Claimant's Exhibit No. 4.)

MR. STRATTON: That is all.

(Witness excused.)

CHARLES CROFT, called as a witness on behalf of the libellant, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. State your full name.
A. Charles Croft.
Q. How old are you?
A. Next March, 56.
Q. What is your business?
A. My business just now?
Q. Yes.
A. Why, I am working on electricity of late years, but before that I worked on the sea all my life.
Q. How long have you been to sea?
A. I was to sea 25 years steady, every year—eight or nine or ten months every year.
Q. Where were you born?
A. In Helgoland.
Q. Your father was an Englishman?
A. Yes.
Q. What character of vessels did you sail on?
A. I sailed on all kinds.
Q. Full rigged ships?
A. Full rigged ships, three-masted schooners, barkentines.
Q. In what capacity?
A. All over the ocean—all over the globe.
Q. As a sailor?
A. Yes.
Q. You say that you have been in electricity since you quit the sea?
A. Yes, sir.
Q. In what capacity?
A. Been on the lights and on the poles.
Q. Lineman?
A. Lineman, yes.

Q. Where do you live?
A. Victoria.
Q. How long have you lived in Victoria?
A. Since 1887.
Q. How long have you worked for the Electric Company there?
A. Four years.
A. In what capacity?
A. On the lights.
Q. Wiring?
A. Wiring and repairing lights.
Q. Were you a member of the crew of the tug Commodore on the voyage when she had in tow the barge Bangor in the month of March, 1917?
A. Yes, sir.
Q. Were you a sailor on that voyage at that time?
A. I was deck-hand.
Q. What were your duties?
A. My duties—you have to do everything, you know; when you are a deck-hand you do everything; we have a watch and have to steer the vessel the same as a quartermaster.
Q. Helmsman?
A. Yes, when you ship as a quartermaster you don't have to do any other kind of work; when you ship as a deck-hand you have to do all kinds of work.
Q. Did you act as helmsman on that voyage?
A. Yes.
Q. Every day?
A. Yes.
Q. Where were you on the tug at 12 o'clock at night on March 25th, 1917, after the vessel had passed into Revillagigedo Channel?
A. I was on the tug.
Q. Where were you on the tug?
A. I don't remember now.
Q. What was your watch?
A. My watch was 12 to 6.
Q. Each 12 to 6?
A. Yes.
Q. Were you on watch from midnight until 6 o'clock?
A. Yes, sir.
Q. On the day that the vessel was wrecked?
A. Yes, sir.
Q. The barge Bangor?
A. Yes, sir.

Q. And while you were on watch from 12 to 6 where were you?

A. I cannot tell you.

Q. Where were you on the vessel?

A. I was in the pilot-house.

Q. Steering the vessel?

A. Yes, sir.

Q. During that entire watch?

A. Yes, sir.

Q. Do you remember the condition of the weather on that watch?

A. Oh, yes.

Q. What was it?

A. When I went on watch it was dirty and blowing; of course I saw worse in my life.

Q. Did it increase from then on until 2 o'clock?

A. I cannot tell you; I was inside.

Q. What was the condition of the sea?

A. Quite choppy.

Q. Do you remember passing Tree Point—you were not on watch at that time, were you, at 11:19?

A. I don't know.

Q. When you came on watch what speed was the vessel making so far as—

A. I couldn't tell you.

Q. Was she going full speed, three-quarters speed, or half speed?

A. When I came on deck no bells changed—it was the same as before.

Q. You mean by bells, signals to the engine room?

A. Certainly.

Q. No signals to the engine room during your watch up to the time of the wreck?

A. To the time of the wreck.

Q. Were there any signals given by the steam whistle of the tug from the time you came on watch until the time of the wreck?

A. No, sir.

MR. STRATTON: We object to the question. The witness answered before I could make the objection and I move to strike out the answer. We object to the question on the ground that it is incompetent, irrelevant and immaterial; there is no allegation in the libel that there was any negligence, any failure to give signals. Further than that, the witness who has already testified said no signals were necessary, that it was up to the barge to follow the ship.

THE COURT: Motion denied—objection overruled.

MR. STRATTON: Exception.

A. Not that I know.

Q. Would you have heard the signals if there had been any?

A. I couldn't say—they blow in the pilot-house when they give a whistle.

Q. You could tell in the pilot-house if there had been any signals given?

A. Certainly.

Q. And there were no signals given that you know of?

A. No.

Q. I will ask you if you know Captain Johnson, who was then master of the tug?

A. I tell you really I didn't know he was master there, but I found out that Captain Johnson was supposed to be my master—supposed to be my officer on board the ship—Captain Johnson.

Q. Who else was acting as officer, or giving orders on the ship?

A. Captain Bjerre gave most of the orders to me—sometimes the mate and sometimes Captain Johnson.

Q. What was the mate's watch?

A. The mate's watch—I was on the mate's watch.

Q. 12 to 6?

A. Yes, sir.

Q. Did the mate come on watch at 12 o'clock that night?

A. It might have been a few minutes after 12.

Q. Was Captain Johnson in the pilot house when you came on watch?

A. Yes, sir.

Q. Did he remain in the pilot house?

A. Captain Bjerre was in the pilot house, too.

Q. Did Captain Johnson remain in the pilot house?

A. For a while, and he went out.

Q. For how long?

A. He stayed there for a while and then he went out—they looked at some courses on the chart, which is not my business.

Q. Do you mean by a while that he was there an hour or ten minutes?

A. Oh, it might have been more and it might have been less.

Q. It might have been less than what?

A. An hour.

Q. Was he there an hour?
A. No.
Q. Was there a lookout on the tug?
A. No, sir; I was in the pilot house—

MR. STRATTON: We object to the question on the same ground that we objected a while ago, and move to strike the answer.

THE COURT: The objection is overruled.

MR. STRATTON: Exception.

THE WITNESS: No, sir; I was in the pilot house, and both captains were in the pilot house—them two kept a lookout that night.

Q. You mean they took a look out from the pilot house?
A. Yes.
Q. But there was no lookout from the pilot house to the stem of the vessel that night?
A. No.
Q. The vessel was not in the habit of stationing a lookout forward?
A. No, sir.

MR. STRATTON: We object to your leading the witness.

MR. GORHAM: Excuse me.

Q. State whether or not it was the custom of the tug on that voyage to have a lookout forward at night time?
A. The boats I was on had a lookout.
Q. But this tug?
A. It was not.

MR. STRATTON: I move to strike out that part of the answer which is not responsive.

THE COURT: The first part of the answer may be stricken.

Q. You say the weather was dirty?
A. Yes, sir; when I came on deck.
Q. What was it doing?
A. Oh, kind of coming down sleet and everything, you know, and I didn't lose very much time, I run for the pilot-house to get in under shelter.
Q. You were on the tug at the time the towing device parted?

A. Yes, sir.

Q. Tell us what happened just before—did you know when the towing device parted?

A. Yes, sir.

Q. How did you know?

A. I knew it carried away—I felt the jar.

Q. What happened just before this, if anything?

A. The old gentleman, the old captain looked through the window—

Q. Captain Bjerre?

A. Yes, sir, and he said, "pull her over" and he jumped up and grabbed the wheel away from me; I was on the port side so I couldn't put the wheel over quick enough, and he grabbed the wheel out of my hands and put it hard down, and then I got up near the wheel naturally, because it was my business, you know.

Q. Who was in the pilot-house at that time?

A. Me, Captain Bjerre, and the mate just come in.

Q. Was Captain Johnson there?

A. No, sir.

Q. When you want to put your vessel to starboard you turn your wheel which direction?

A. You have got to swing it around.

Q. You put your wheel the same direction you want to go, don't you?

A. Yes, certainly.

Q. Do the tiller lines run straight down?

A. I don't know anything about the tiller lines; I know which way you go when you turn the wheel.

Q. Where was your position as helmsman on that watch with regard to midships, or center of the vessel?

A. I was on the port side.

Q. Of the wheel?

A. Yes, sir, to get close to the compass.

Q. And who at this time you are now referring to, if anybody, was on the starboard side?

A. Captain Bjerre.

Q. Where was the mate?

A. On the port side.

Q. To your left?

A. Yes, sir.

Q. You say Captain Bjerre jumped for the wheel and pulled it toward him?

A. Yes, sir.

Q. And how much did it port to helm?

A. He put it hard down.

Q. How long did it remain hard down?

A. Not very long.

Q. How long?

A. I took the wheel right away from Captain Bjerre and I know a few minutes after he says, "Ease her up ease her back again."

Q. Do you know how long that will be?

A. No, he told me, "Steady, steady," and I had to obey orders, you know.

Q. Now, between the time that he said "Hard over" and "Steady," how much time elapsed?

A. Not very long; it all was done in a hurry; there wasn't no time to do nothing—didn't spend any time looking around.

Q. Did you say you looked out of the window at or immediately before the accident happened?

A. Just when he called to put the wheel over I looked through the window and I saw some mist on the water that looked to me like it was the wash on the rocks.

Q. And when you felt this sudden jar did you make any remark?

MR. STRATTON: I don't think the witness testified that he felt any sudden jar.

Q. When you felt this jar?

A. Yes, sir.

Q. Did you make any remark to anybody?

A. Yes, sir.

Q. To whom did you make a remark?

A. To Captain Bjerre.

Q. What did you say?

A. I said, "What is going on—has something happened?" Captain Bjerre said, "Yes, we lost the tow."

Q. From your experience as a helmsman can you tell when you are standing at the wheel performing your duties whether the tow is properly following?

A. Certainly—once in a while, you know, you look around; you can tell the difference right away; if you are in the pilot-house and the ship steers about and when the boat comes on the quarter it makes a difference right away, and you can tell it.

Q. Can you tell by your compass card?

A. Certainly I could tell by the compass.

Q. Now, when Captain Bjerre said the hawser was carried away, what orders were given, if any?

A. There was for a minute no orders at all; Captain

Johnson come in and Captain Bjerre repeated and said, "Damn it, we lost that damned tow." Then they went out —they both went out—the Captain went out and after a little while Captain Bjerre went out, but Captain Bjerre wasn't very long out; he came right back again.

Q. And they left you all alone in the pilot-house?

A. For a few minutes, yes, but he come right back again.

Q. Did you hear Captain Bjerre give any orders to anybody?

A. Yes, sir.

Q. What were they?

A. To get the tow-line in.

Q. To whom did he give that order?

A. I am not very sure, but I believe it was to Captain Johnson.

Q. This was after you felt the jar?

A. A few minutes after, yes.

Q. Did you hear any report to Captain Bjerre after that order was given to take the hawser in?

A. Yes, sir.

Q. Who made the report?

A. They spoke in the pilot-house about it.

Q. What did they say?

A. They thought before it was hauled in that the hawser carried away, but after they pulled it in they found out the shackle carried away.

Q. And that is the report they made.

A. Yes, sir.

Q. You did not know what Captain Bjerre's position was on the vessel?

A. No, I did not.

Q. At that time?

A. No, sir, I didn't; and I don't know yet.

Q. And the next day or two days following the wreck did you hear Captain Johnson make any statement in reference to Captain Bjerre and the wreck?

MR. STRATTON: I object to that, your Honor, upon the ground that it is hearsay—it is not a part of the *res gestæ*—it is afterwards, and even a manager cannot bind his principal by making a statement two or three days after a certain thing takes place, when that thing is in litigation. Our Supreme Court has passed upon that many, many times. I object on the ground that it is incompetent, irrelevant and immaterial, and not within the issues, and it is not a part of the *res gestæ*.

THE COURT: I will have to sustain the objection.

Q. I will ask you if on the day of the wreck, later in the day, you heard Captain Johnson make any statement in reference to whose fault it was that the wreck occurred?

MR. STRATTON: I object to the question on the grounds that I have already mentioned.

THE COURT: The objection will be sustained.

MR. GORHAM: We take an exception to your Honor's ruling, and we now offer to prove by this witness, if the Court please, that Captain Johnson, in the presence of this witness, said, on the day of the wreck or the day following the wreck, that it was Captain Bjerre's fault that there was a wreck; and we offer to prove by this witness that on the same day, on board the tug in both instances, the mate, Sam Dawe, said, in the presence of this witness, that the cause of the wreck was the fault of Captain Bjerre.

MR. STRATTON: We offer the same objection to the receipt of proof on that offer.

THE COURT: The objection is sustained.

MR. GORHAM: We take an exception to the Court's ruling. That is all—you may cross examine.

CROSS EXAMINATION

BY MR. STRATTON:

Q. To what country does Helgoland belong?

A. It used to belong to Great Britain; belongs to Germany now.

Q. Since when?

A. Since 1886.

Q. You have lived in Victoria since 1887?

A. '87, yes, sir.

Q. Are you a married man?

A. I was married; my wife is dead, 14 or 15 years ago.

Q. Did you make any trips on the Commodore before this one?

A. No, sir.

Q. March last?

A. No, sir.

Q. Did you make any trips on any other tug boat through Revillagigedo Channel prior to last March?

A. I made trips on quite a number of boats.

Q. Through that channel—through the Revillagigedo Channel?

A. Oh, yes; I went up to Skagway a couple of times.

Q. On what boat?

A. I was on the Danube a couple of times.

Q. What kind of a boat was that?

A. It used to be a C. P. R. boat.

Q. Passenger boat?

A. Yes, sir.

Q. And you made a trip as a passenger on that boat?

A. No, I was deck-hand.

Q. A couple of trips?

A. Yes, sir.

Q. When?

A. Some time ago, during the Yukon excitement.

Q. In 1897 or '8?

A. Yes.

Q. You were quartermaster on that boat?

A. No.

Q. Did you ever steer a ship through there?

A. Not up here, no, sir.

Q. You never steered a ship through Revillagigedo Channel until the night you were on the Commodore?

A. Yes, sir.

Q. What other times were you through that channel besides the time that you were on the Commodore?

A. I went through on the steamer Thias.

Q. As a passenger?

A. Yes, sir.

Q. When was that?

A. I think it was in 1897, I guess, going up to Dawson.

Q. That is all the experience you have had in this channel?

A. Yes, sir.

THE COURT: I did not understand what the witness said about that, whether they were passenger ships, or whether he was a passenger on the ships.

THE WITNESS: It was a passenger boat and I was a passenger on it.

Q. As helmsman on this night of the 26th of last March you steered the ship right, according to the courses given, did you not?

A. I steered the ship according to the different orders the different officers gave me.

Q. And you came on watch at 12 o'clock?

A. Yes, sir.

Q. Where was the tug when you came on watch?

A. I don't know—that isn't my business, you know—that is the officer's business.

Q. What were your duties when you were on watch?

A. My duties is to steer the ship.

Q. And the wheel is in the pilot-house?

A. In the pilot-house.

Q. And the pilot-house is about 30 or 40 feet back from the bow, isn't it?

A. Right midships, very near.

Q. How far back from the bow is it?

A. I didn't measure it, I don't know exactly.

Q. What is your best judgment?

A. I don't know; I would have to measure it to tell you a thing like that.

Q. How long is the Commodore?

A. I don't know; I never measured it.

Q. And it may be that the pilot-house is half way between the bow—

A. It might be a little more forward; I tell you I never measured it; it has got to be measured and then I will tell you exactly how far it is.

Q. Would you say to the Court here that the front part of that pilot-house is more than 40 feet back from the bow?

A. I couldn't tell you; I never measured, I told you before.

Q. Then you don't know where the pilot-house is located on that ship, do you?

A. It is located on the deck, certainly—on top of the deck; it couldn't be in the hold.

Q. But you don't know how close to the bow it is located—that is what I mean?

A. No, I told you before I never measured it; if I had a tape and measured it I could tell you.

Q. So far as you know it might be under 40 feet from the bow?

A. It might be and it might not be, I don't know.

Q. Now, where did you say you stood as helmsman?

A. On the port side.

Q. On the port side of the wheel?

A. Yes, sir.

Q. Is that the customary place?

A. You have got to stay where the compass is; you can-

not stay on the starboard side if the compass is on the port side.

Q. Who was in the pilot-house when you took your watch?

A. Both captains were in there.

Q. That was at 12 o'clock—that is to say, Captain Johnson and Captain Bjerre?

A. Yes, sir.

Q. Who had been at the wheel prior to the time that you came on watch?

A. The quartermaster.

Q. Who was the quartermaster?

A. Another deck-hand.

Q. What was his name?

A. I don't know his name.

Q. How long did Captain Johnson and Captain Bjerre remain in the pilot-house together after you came on watch?

A. Quite a while.

Q. As much as three hours?

A. Oh, no—three hours—it wasn't an hour; about three-quarters of an hour.

Q. I didn't know what you meant by quite a while and I was trying to find out. About three-quarters of an hour—so you think Captains Johnson and Bjerre both stayed in the pilot-house three-quarters of an hour, which would make it 12:45 or thereabouts?

A. About that, I don't know exactly; I didn't take notice of the time.

Q. Which one went out first?

A. Captain Johnson.

Q. Do you know what he went out for?

A. I don't know, but if anybody goes out of the pilot house I always think they went below.

Q. Do you know where he went?

A. No, sir, I do not.

Q. Do you know what he did when he went out?

A. No, sir.

Q. Do you know how long he stayed out?

A. No, sir.

Q. It may have been 5 minutes or 10 minutes?

A. Oh, no, he came back just after the tow carried away.

Q. Then you do know how long he stayed out?

A. Yes, sir.

Q. Then you didn't mean to say that you don't know how long he stayed out?

A. You asked me how many minutes he stayed out—he came in after the tow carried away.

Q. You mean to be understood that Captain Johnson went out of the wheel house about 12:45 and that he stayed out of the wheel house until after the shackle was carried away?

A. Yes, sir.

Q. That is what you mean to say?

A. Yes, sir.

Q. And you don't know where he was in the meantime?

A. No, sir.

Q. Was anybody else in the pilot house, other than Captains Bjerre and Johnson, between 12 o'clock and the time the shackle broke?

A. Captain Johnson and Captain Bjerre?

Q. Yes.

A. Captain Johnson wasn't there at all.

Q. I asked you if anybody else was in the pilot-house between 12 o'clock and the time the shackle broke besides Captain Johnson and Captain Bjerre.

A. I told you Captain Johnson was not there.

Q. He was there part of the time?

A. No, I told you before that he went out; it was my watch and the mate was there.

Q. The mate was where?

A. In the pilot-house.

Q. Then Captains Bjerre and Johnson were not the only ones who were in the pilot-house besides yourself, from the time you went on watch until the time the shackle carried away?

A. It is the mate's businss to be there, and I was on the mate's watch.

Q. The mate was in there?

A. Yes, sir; and he went out.

Q. Who was he?

A. The gentleman is right there (indicating).

Q. You mean Mr. Dawe?

A. Yes, sir.

Q. Mr. Dawe, then, was in the pilot-house between twelve o'clock and the time the shackle carried away?

A. Yes, sir, but he went out, and then he come back again.

Q. What time did Mr. Dawe come into the pilot-house?

A. Mr. Dawe came into the pilot-house just about when the shackle carried away—just about.

Q. He had not been in the pilot-house before that after twelve o'clock?

A. No, Captain Bjerre ordered him at that time to go outside of the pilot-house and look out.

Q. What time was it when Captain Bjerre ordered Mr. Dawe to go out of the pilot-house and look out?

A. Just before the tow got away.

Q. Just before what?

A. Just before we turned our wheel.

Q. Did Mr. Dawe go out of the pilot house before or after the shackle broke?

A. Before the shackle broke.

Q. How long before the shackle broke?

A. Not very long.

Q. Two hours before it broke?

A. Oh, no, two hours—how could it be two hours before the shackle broke?

Q. I am asking you how long—give us your best opinion, that is all.

A. I cannot answer a question like that—two hours—it was first an hour and then two hours—what kind of a question is that?

Q. What time of the day or night was it when the shackle broke?

A. It was midnight.

Q. It broke just at 12 o'clock?

A. No, not at 12 o'clock; it broke after I was on watch, and it broke quite a while after I was on watch—I didn't take the time.

Q. It didn't break at midnight, then—it broke after midnight?

A. I never took the time.

Q. You don't know what hour it was when the shackle broke?

A. No, sir; I don't—I never took the time—it wasn't my business—it was the business of the master of the ship and not my business.

Q. You recall that Mr. Dawe did go out of the pilot house?

A. Yes, sir.

Q. Have you any recollection of how long it was before the shackle broke that Dawe went out?

A. No, sir, I don't know.

Q. Do you think it was as much as an hour?

A. It ain't no good to say if you don't take the time.

Q. Did you say what time Mr. Dawe came into the pilot house?

A. He went out for a while and stayed quite a little while on the deck—

Q. I didn't ask you what time he went out, I asked you what time he came into the pilot-house?

A. He went out and came back and stayed at the window again like he always did.

Q. I am asking you if you know what time Mr. Dawe came into the pilot-house first after 12 o'clock?

A. I told you I never looked at the clock.

Q. How long did he stay in the pilot-house?

A. There you ask me the same question again, and I told you I never looked at the clock; I am to look at the compass and attend to my duties, that is what I am there for.

Q. You do know that Johnson was out of the pilot house?

A. Yes, sir.

Q. And he was out of the pilot-house at the time the shackle broke?

A. Yes, sir.

Q. How long before the shackle carried away did Captain Johnson go out of the pilot-house?

A. I cannot tell you exactly the time.

Q. Was it as much as 10 minutes?

A. Oh, more than that.

Q. 15 minutes?

A. I cannot tell you how many minutes—I have told you that many times.

Q. When did Captain Johnson go back to the pilot house—what time?

A. Just after the shackle carried away.

Q. Just a little while after?

A. Yes, sir.

Q How long did he stay in the pilot house?

A. They didn't stay there long—they went aft and done something aft; I don't know what they did—I guess they pulled the tow line over.

Q. Who stayed in the pilot house?

A. Captain Bjerre.

Q. Did Captain Bjerre go out of the pilot house?

A. Yes, sir.

Q. After 12 o'clock?

A. He went out after the tow carried away.

Q. Then Captain Bjerre did not go out of the pilot

house between 12 o'clock midnight and the time the shackle carried away?

A. No, sir.

Q. He stayed in the pilot house all the time?

A. Yes, sir, he stayed near the window and looked out.

Q. The windows on both sides of the pilot house were open?

A. Yes, the mate had his window open and the Captain had his window open.

Q. And they were listening and looking out?

A. Yes, looking out—I don't know what they were looking for, but they looked out, anyway.

Q. Did you notice what way the vessel headed after you put the helm hard aport after the shackle broke?

A. I never put it hard aport—Captain Bjerre put it hard aport.

Q. Did you notice what direction the vessel was taking?

A. There were so many courses—there was about a thousand courses in five minutes.

Q. After that shackle broke there was excitement and something doing around there?

Q. You bet your life there was something doing.

Q. Everybody wanted to save the barge, didn't they?

A. No, sir, everybody wanted to save his life.

Q. Yourself included?

A. You bet your life; I don't want to die yet—I want to live a couple of years longer.

Q. You say no bells changed while you were on your watch?

A. Yes.

Q. What do you mean by that?

A. When the bell jingles I hear it.

Q. What do they jingle the bell for?

A. For the engine room.

Q. What are the bell signals?

A. For the engineer to go ahead or stop it or to slack it up, and one thing and another; that is the officer's business, not my business.

Q. You didn't give those signals, did you?

A. No, sir, I did not.

Q. That is up to the officer?

A. To the officer on watch.

Q. You had nothing to do with it?

A. No, sir.

Q. How were the bells given? Now, in the pilot-house, when the officer on watch wants to have the engine slowed down or stopped, how are the bells given?

A. It tells you on the register.
Q. How are those signals given?
A. You pull a lever.
Q. You pull your lever over to where it says slow or ahead or stop or half speed?
A. Yes, certainly.
Q. Did you stand where you could see the dial of the lever?
A. Certainly.
Q. You could see the dial of that lever?
A. Certainly, if I wanted to look at it I could see it.
Q. Where was it with reference to where you stood?
A. Right about here (indicating).
Q. To the right of you?
A. No, back of me.
Q. Back of you?
A. Yes.
Q. That dial was back of you?
A. Certainly.
Q. Isn't that dial covered?
A. No, it is not.
Q. Do you mean to say that you could see the dial of the signal apparatus if you had turned around and looked backward?
A. No, when I want to see it all I have to do is to turn around and look at it.
Q. You have to turn around and walk back to it, don you, and get in front of it?
A. No, I don't.
Q. You can without going out of your steps turn aroun and see it?
A. Certainly.
Q. Did you look at that to see it?
A. Sometimes I did and sometimes I didn't; it isn't m business.
Q. Your business is the steering of the ship?
A. Yes.
Q. And looking after the compass and not whether ther were signals or bells given?
A. No, sir.
Q. That is not your business?
A. No, sir.
Q. You mean to say, do you, that you know every tim a bell is given to the engine room?
A. I hear it.
Q. Do you mean to say that you know every time a bel is given to the engine room?

A. I have heard it, certainly—I don't know why I wouldn't, when the bell is ringing.

Q. Every time you are on watch do you know how many bells are given every time?

A. Certainly, when I am on watch I hear the bells—I must have a head like a big tomato if I don't.

Q. Now, it was none of your business whether the bells were given or not?

A. No.

Q. And you didn't charge your mind at that time with ascertaining whether bells were given or not, did you?

A. I know they were not given.

Q. You answer the question—you didn't charge your mind at that time with ascertaining whether or not bells were given, did you—you didn't charge your mind with remembering?

A. No, sir.

Q. Can those bells, when they are given, be heard from the engine room up in the pilot house where you were?

A. Certainly, when they answer in the engine room you hear it.

Q. But you hear the answer, in the pilot house?

A. Yes.

Q. You don't hear the bell in the engine room?

A. No, how could you hear the bell in the engine room? The engine room is in the bottom and I am on top.

Q. You have already said that it was the duty of the officer on watch to give the bells?

A. Yes, sir.

Q. Now, when a bell is given by an officer on watch to the engine room, is it always customary for the engineer to give the signal back that rings in the pilot house?

A. Certainly.

Q. Do you know what the signal is to go full speed?

A. I do not.

Q. Do you know how many bells are given to go half speed?

A. I never took notice.

Q. Do you know how many bells are given to the engineer to slow down?

A. That is none of my business; my business is to steer the vessel.

Q. You don't know any of the signals, d you?

A. No, my business is to steer the vessel.

Q. Do you know what any of the signals are when the engineer answers the signals given by the

A. I don't bother about that; that is for the officer on watch to look after.

Q. Do you know whether an engineer at times gives back a long bell or a short one?

A. That don't bother me; that is up to the officer on watch to look after that.

Q. Now, with reference to signals—whose duty is it to give those steam signals?

A. The officer on watch.

Q. What do you mean by steam signals?

A. To blow the whistle.

Q. For what, if anything?

A. For anything—if a steamer passed you would blow the whistle, and the officer gives the signal.

Q. And you mean to tell the court that between 12 o'clock and the time that you went off watch at 6 o'clock the next morning that the whistle didn't blow once?

A. No, I never said that; I said from the time I came on watch till the tow carried away the whistle never blew.

Q. I didn't get that.

A. From the time I went on watch at 12 o'clock to the time the tow carried away the whistles never blew.

Q. Then, if you said a little while ago no signals were given at any time during your watch you were mistaken?

A. My watch?

Q. Yes.

A. There may have been some given afterwards—I know there was none given while I was in the pilot house.

Q. How do you know that none were given before the shackle carried away but that they might have been given after the shackle carried away?

A. Can't I see when the officer pulls the rope of the whistle? It is right in front of my eyes.

Q. But you remember that he didn't pull the rope before the shackle carried away, why can't you remember whether he pulled the rope after the shackle gave way?

A. There was too much excitement.

Q. You just answer my question. You remember now that before the shackle gave way the officer did not pull the rope?

A. No, sir.

Q. But after it gave way he did pull the rope?

A. I told you I don't know whether he did or not.

Q. Then you don't know whether any signals were given after the shackle carried away or not?

A. No, sir.

Q. And you say you can remember that none were given before the shackle carried away, and none were given after the shackle carried away?

A. I don't know whether there was any given or not; there was excitement there—all the whole bunch of us was excited.

Q. How long did everybody remain excited?

A. Quite a while.

Q. What do you mean by quite a while—an hour?

A. No.

Q. Half an hour?

A. It didn't take very long to get excited but it was quite a while before it quieted down again.

Q. About how many minutes would you say it was that everybody was excited?

A. The excitement lasted a few minutes.

Q. After that excitement cleared away, after that few minutes of excitement, why wouldn't you notice whether or not the whistle was blown or the rope pulled as much as you would before the shackle carried away?

A. I never noticed it.

Q. Do you know how far that whistle can be heard if it is sounded?

A. You can hear one whistle farther than another.

Q. I mean the whistle on the Commodore?

A. I don't know.

Q. And you don't pretend to say how far that whistle could have been heard that night when it was blowing like it was?

A. I don't know how far that whistle sounds.

Q. You say you didn't know who was the master of the tug?

A. No—I didn't know when I first went on, anyway, but I found out afterwards.

Q. What did you find out?

A. Aboard the ship or tug we were talking between ourselves and I says: "Who is the master here?" and they said Captain Johnson.

Q. Captain Johnson was master, wasn't he?

A. Yes, sir, from what I know.

Q. Did Captain Bjerre give any orders?

A. Every time in the pilot-house he give me orders; most of the orders I got was from Captain Bjerre.

Q. At the time Captain Johnson and Captain Bjerre were in the pilot-house together, did Captain Bjerre give you any orders?

A. Yes, sir.

Q. Do you know whether or not Captain Johnson had given Captain Bjerre the order before Captain Bjerre gave it to you?

A. I don't know.

Q. What orders did Captain Bjerre give to you?

A. He tells me the course, the different courses; the officer of the vessel always gives you the course and you have to do the work.

Q. What was the first course that Captain Bjerre gave you that night?

A. I don't know there so many courses.

Q. I mean before the shackle broke?

A. Yes, too many courses.

Q. Lots of courses before the shackle broke?

A. Quite a few of them.

Q. How many courses were there after you went on watch before the shackle broke—how many changes of courses?

A. I cannot tell you how many.

Q. Was it a dozen?

A. I cannot tell you.

Q. You don't know whether it was one or twelve?

A. It takes more than me to keep a record of courses.

Q. I am asking you how many—

A. And I am telling you right now I cannot tell you.

Q. You don't know whether there were more than six?

A. Might be more and might be less, I don't know.

Q. You are sure there were several more than two, are you?

A. There were some courses given right along.

Q. More than three, were there?

A. I told you I don't know exactly.

Q. Did Captain Johnson give you any orders during your watch up until the time the shackle broke?

A. No, sir.

Q. He never gave you an order?

A. No, sir, not that night anyway.

Q. I am speaking now of between the hour of 12 o'clock and the time the shackle broke?

A. Yes, sir.

Q. He didn't give you any orders?

A. No, sir; I got my orders from Captain Bjerre.

Q. Was Captain Johnson present at any time when Captain Bjerre gave you orders?

A. Yes, he was in the pilot-house.

Q. Did Captain Bjerre give you any orders while Captain Johnson was out of the pilot-house?

A. Certainly.

Q. Who was the mate that gave you orders that night. Mr. Dawe?

A. Yes.

Q. Was Captain Bjerre in the pilot-house when the mate gave you orders?

A. The mate did not give me any orders while the Captain was there.

Q. Then Captain Bjerre was not in the pilot-house when Mr. Dawe gave you orders?

A. I take orders from the mate, certainly.

Q. But when the mate gave you orders, between the time you went on watch at 12 o'clock and the time the shackle broke, was Captain Bjerre in the pilot-house?

A. The mate never gave me no orders since he came on watch, but Captain Bjerre gave me the orders.

Q. Then the mate did not give you any orders?

A. No order in the pilot-house.

Q. Then the mate did not give you any orders between 12 o'clock and the time the shackle carried out?

A. No, sir.

Q. Did he give you any orders afterwards?

A. Certainly.

Q. What time did Mate Dawe come on watch?

A. He come on watch when I come on watch, at 12 o'clock.

Q. Did Mr. Dawe give you any orders after the shackle broke?

A. After the Captain went out, certainly; then I took the orders off the mate.

Q. When did Captain Bjerre go out with reference to the breaking of the shackle?

A. I couldn't tell you exactly.

Q. When did Mate Dawe come into the pilot-house—I mean, after the shackle broke?

A. Quite a while afterwards.

Q. Captain Bjerre was there until Dawe came?

A. Yes, sir.

Q. And when Mate Dawe was in the pilot-house, after Captain Bjerre went away, was anybody else in there besides you and the mate?

A. Captain Johnson came in and went right out again.

Q. Now, what did you say about a lookout on that boat?

A. There was no lookout.

Q. There was no lookout on the tug Commodore?

A. No.

Q. You don't know, do you, whether it is customary or usual for tug boats to carry a lookout and have a lookout, in the Southeastern Alaskan inland waters, such as Revillagigedo Channel?

A. I don't know about that.

Q. You don't know because you haven't been through there enough?

A. No, but I know they have got to have—

Q. Just a minute, now—I have asked you all I wanted and I don't want you to volunteer anything. Now, did you feel a jar when the shackle broke?

A. Yes, sir.

Q. What did you think had happened?

A. I knew something carried away, but I didn't know what was carried away.

Q. Had you ever been on a tug before when anything carried away like that?

A. Yes, sir, I was.

Q. On a tug boat?

A. Yes, sir.

Q. What boat?

Q. On the Pilot.

Q. What did you lose that time?

A. Lost the ship.

Q. Did the hawser break?

A. Yes, the hawser broke.

Q. Where was that?

A. In San Juan harbor.

Q. That is in Puget Sound?

A. Yes, sir.

Q. Quite a common occurrence for hawsers and shackles to break, isn't it?

A. Certainly; it depends on what kind of strain you put on it.

Q. Now, when you felt the jar what happened immediately afterwards?

A. The Captain come in—Captain Johnson came in.

Q. Did he do anything?

A. Captain Bjerre said—

Q. Did Captain Johnson do anything when he came in?

A. No.

Q. He just stood there?

A. He had a conversation with Captain Bjerre.

Q. What did Captain Bjerre do?

A. Captain Bjerre said, "We lost that damn tow—something carried away on it."

Q. That is all he said?

A. Yes.

Q. Captain Johnson made no reply—Captain Johnson didn't say anything?

A. I don't remember now.

Q. Was the mate in there when Captain Bjerre said, "We lost the damn tow?"

A. Just came in.

Q. He just came in before Captain Bjerre made that statement?

A. Yes, sir; just come in a few minutes before.

Q. And Captain Bjerre, you say, put the wheel hard aport?

A. Yes, sir.

Q. What course did the vessel take when he did that?

A. I cannot tell you, there were so many courses.

Q. I mean what course with reference to the course you had been on before?

A. I never took notice of it.

Q. The tug did not go at right angles to its previous course?

A. What?

Q. When Captain Bjerre put the helm hard aport did the tug go at right angles then to the course she had previously pursued?

A. I think she went more than right angles.

Q. Did it make a circle of 180 degrees?

A. No, sir.

Q. It turned around and went back on the same course you were coming up on?

A. No, sir, not on the same course.

Q. How far did it turn?

A. I looked through the window and I saw the boat right close on to us.

Q. You looked ahead?

A. No, not a-head; I looked sideways through the window.

Q. On which side?

A. The starboard side.

Q. You looked through the starboard side window and saw the boat to the starboard side of you?

A. Yes, sir.

Q. And you turned clear around?

A. No, sir, didn't turn clear around because if we did we would run into the boat.

Q. When you looked out of the window and saw the boat, how was it?

A. It was abaft the beam.

Q. Then you must have been south of the boat when you saw it abaft the beam.

A. We were going this way and she was over on the starboard side.

Q. But you must have been further south?

A. I don't know how far south we was; it wasn't my business, anyway.

Q. Then you must have been further south than the tow, if, when you looked out of the window, the boat was abaft your starboard beam, is that so?

A. I will show you right on this how the boat was. The boat turned around, and the boat was about that way (indicating); I didn't watch the compass how many points or anything, I know I was looking out of the window.

Q. After the shakle broke did the tug make a complete circle?

A. Yes, sir.

Q. How many complete circles?

A. Three.

Q. What for?

A. I don't know.

Q. Did it come in close to the small island?

A. No, quite a bit off.

Q. Did you say you saw any breakers?

A. Yes, sir, I did.

Q When did you see the breakers first?

A. Just when Captain Bjerre put the wheel over; I don't know if it was breakers; it was white foam on the rocks, anyway; and Captain Bjerre was the man who grabbed the wheel and put it right down—I had no time at all to put her over, because Captain Bjerre is very stout and when he gets hold of something it must go, and he grabbed that wheel.

Q. Which side of the wheel was Captain Bjerre on?

A. The starboard side.

Q. He was on the starboard and you were on the—

A. On the port.

Q. Did Captain Bjerre say how close to the land they were when he put the wheel hard over?

A. No.

Q. And you took the wheel, did you, when Captain Bjerre put it over?

A. I took the wheel away from Captain Bjerre.

Q. But Captain Bjerre, you say, put the wheel over himself?

A. Yes, sir.

Q. And you followed the wheel?
A. No, I didn't.
Q. I thought you said you did.
A. When he took that wheel it went over all right.
Q. Which way did Captain Bjerre revolve the wheel, to the right or to the left?
A. Around this way (indicating).
Q. Which way is that, right or left?
A. To the starboard; you have got to turn your wheel whichever way you want to go.
Q. Captain Bjerre turned the wheel to the right, did he?
A. Now, let me explain; I always turn the wheel the way I want to go, and when I want the ship to go that way, naturally I go and turn the wheel that way.
Q. That is not the question I am asking you. I am asking whether Captain Bjerre turned the wheel to the right or turned the wheel to the left?
A. He turned the wheel this way (indicating).
Q. Turned it to the right or left, which?
A. I told you that you point your ship and any way that the ship wants to go you have got to turn your wheel that way, and when you turn the wheel this way you are going to the left, and this way you are going to the right.
Q. I am not asking you what you do. I am asking you, looking at the wheel from in back of it, whether Captain Bjerre turned the wheel to the right or turned the wheel to the left—you can answer that?
A. He turned the wheel to the right, certainly.
Q. That would put the ship which way?
A. Off the shore.
Q. To the starboard?
A. Certainly.
Q. Did he turn it hard over?
A. He turned it hard down.
Q. Before that time had Captain Bjerre ordered the course changed?
A. What?
Q. Before Captain Bjerre put the wheel hard over, as you say, had he ordered any change in the course?
A. He ordered me to ease her up.
Q. When was it that he ordered you to ease her up?
A. Just when I took the wheel off of him.
Q. Had he given you any orders before that to change your course—I mean any time before the shackle broke had he given you orders to change your course?
A. What?

Q. Had Captain Bjerre given you any orders to change your course before the shackle broke?

A. Certainly, sometimes he gives me orders, but I never remember how many times.

Q. How many turns of the wheel,—if the vessel is going straight ahead, how many turns of the wheel does it take to put her hard over?

A. I don't know exactly.

Q. Do you know how many turns of the wheel Captain Bjerre made when he put it hard over?

A. I know when the wheel is hard over.

Q. Will you answer my question? Do you know how many turns of the wheel Captain Bjerre made when he put it hard over?

A. No, I don't.

Q. You don't.

A. No.

Q. And you don't know how many turns of the wheel it takes to put the helm hard over?

A. No, sir, I don't.

Q. Did you ever put the helm hard over yourself?

A. Yes, sir.

Q. And you don't know how many turns it takes?

A. No, sir.

Q. How long were you quartermaster on the Commodore? Just that one trip?

A. That one trip.

Q. You are not sailing at this time?

A. No, I sail off and on.

Q. You have not been sailing since you left the Commodore?

A. No; that is not my business now.

Q. You left the Commodore when she returned to Vancouver, didn't you?

A. Yes.

Q. And you never have seen any of the owners of the tug there, have you?

A. No, sir.

Q. Have you been subpoenaed in this case—given a subpoena?

A. No, sir.

Q. How did you happen to come up here?

A. The gentleman came for me.

Q. Mr. Mylroie came after you?

A. Yes, sir.

Q. And he has paid your fare up here?

A. Yes, sir.

Q. Paid your expenses?
A. Yes, sir.
Q. How much money do you get a day for coming up here?
A. Four dollars a day.
Q. And your expenses?
A. Yes, sir—that is not as much as I make when I am working.
Q. And you were quite willing to come up here and testify for less than you make at home?
A. I wanted to take a trip, that was all.
Q. Have you very friendly feelings towards Captain Bjerre?
A. Certainly.
Q. Good feelings towards him?
A. Yes, sir.
Q. Have you ever made any remarks that were unfriendly to Captain Bjerre?

MR. GORHAM: I object to that, if the Court please, as immaterial; Captain Bjerre is not a party to this cause.

MR. STRATTON: It is for the purpose of showing his interest—if I were asking him this purely for the purpose of impeachment I confess it would be an improper question, but for the purpose of showing an unfriendly feeling towards Captain Bjerre I think it is competent, and I think that is one of the circumstances which the Court may take into consideration.

MR. GORHAM: I think it is entirely incompetent and immaterial because Captain Bjerre does not appear to be a party in this cause, and he may have the most friendly feelings for the claimant and at the same time have some reason to be unfriendly to one of its employees.

THE COURT: Objection sustained.

MR. STRATTON: Exception.

Q. Now, you say that a helmsman can tell if the boat is steering right?
A. Certainly—it must be a very poor helmsman that can't.
Q. Who was it that thought to get the line in after the shackle broke?
A. Captain Bjerre.
Q. To whom did he give that order?
A. To the mate.
Q. Where was Captain Bjerre when he gave the order?

A. In the pilot-house.
Q. Was the mate in the pilot-house?
A. The mate just come in the pilot-house and got the order.
Q. How long after that did Captain Bjerre stay in the pilot-house?
A. Quite a while.
Q. Do you know who was down at the towing machine at the time the shackle broke?
A. No, I do not.
Q. Mr. Dawe might have been there, so far as you know?
A. The whole business might have been there so far as I know.
Q. Even Captain Bjerre?
A. No, Captain Bjerre was in the pilot-house.
Q. You said the whole bunch—
A. There are a lot more beside Captain Bjerre on board.
Q. There are a good many of the crew of the Commodore, aren't there?
A. There is quite a bunch take them altogether.

MR. STRATTON: That's all.

MR. GORHAM: That's all.

(Witness excused).

ANTONE C. BJERRE, introduced as a witness on behalf of the Libellant, being first duly sworn to tell the truth the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. State your name.
A. Antone C. Bjerre.
Q. You are the port captain of the owner of the tug Commodore?
A. Yes, sir.
Q. You are familiar with the tug Commodore?
A. Yes, sir.
Q. What is the speed of the tug, light?
A. Light, it is over 10 knots.
Q. Is that her best speed?
A. No, we could drive her a little more than that—push her ahead. That is the regular speed she is running at.

Q. You built the Commodore, didn't you?
A. Yes, sir.
Q. Yourself—that is, you superintended it?
A. I was over-looking her, yes.
Q. And you built her for speed, did'nt you?
A. No, built her for towing.
Q. Wasn't she built to develop a high rate of speed?
A. No, sir.
Q. How much coal does she carry on her?
A. She will carry about 30 tons of coal below deck.
Q. Whereabouts?
A. Right amidships.
Q. What model different from the model she is would have been necessary to develop more speed?
A. I don't know—you could have made her a little longer if you wanted to. The speed in a tow boat depends very much on the propeller.
Q. What is her speed when she is loaded with coal for a trip to Anchorage and return?
A. Her speed?
Q. Yes, when she is loaded with coal for making a trip with a tow?
A. With a tow,—it would depend entirely on the tow, you know.
Q. The barge Bangor.
A. The barge Bangor,—I think she averaged about seven.
Q. What is her length?
A. The Commodore's length is 135 feet, if I remember right,—that is over all,—I don't just remember the perpendiculars.
Q. Approximately what is it?
A. 18 or 20 feet,—I wouldn't be positive of that.
Q. What is her breadth?
A. 26-6.
Q. What part of the 130 feet does she maintain that breadth?
A. That is the extreme breadth—the widest part of her,—there is no straight line to her at all.
Q. What is her model,—elliptical below?
A. Yes, sir.
Q. What is her depth?
A. 14 feet—that is, in the lowest part of the hold.
Q. What is the average depth of the hold?
A. Her average depth, I should say, would run about 16 from the deck to the lowest part of the hold—that is, where she is measured for tonnage, 14 feet,—but I think

it is 16 or 17 feet. Of course the sheer in the vessel makes her higher at both ends.

Q. And how long is she from her pilothouse to her stem?

A. Well, she is approximately between 35 and 40 feet. I should say off-hand.

Q. And what is her width,—does she come to a sharp point suddenly, or does she swell up to the bow?

A. No, she has a gradual come-around, you know.

Q. What do you mean by that, a gradual come-around?

A. I mean by that she has a gradual come-around to her giving her an extreme width of 26-6. She would not have the same width on either side of that extreme width—she would be narrower.

Q. At 20 feet from the stem what would be her width approximately?

A. On deck?

Q. On deck.

A. I would say approximately 18 feet,—she would be less than that down below,—she might be 20 feet, something like that.

Q. In width?

A. Yes.

Q. At what point?

A. You said 20 feet from the stem,—that is on the forward end.

Q. How wide is she aft, say at the stern post, for instance?

A. Well, I should say it would probably be 20 or 22 feet.

Q. In width?

A. In width, yes,—I wouldn't be positive, but approximately that.

Q. That is from her greatest width of 26-6?

A. Yes.

Q. So she doesn't shorten up on the upper end?

A. No.

Q. Do you know what her displacement is in the water?

A. I never figured it out, the displacement. It depends on what is in her,—of course the more we put in the more the displacement.

Q. What would be her displacement in the water, light—approximately, I mean?

A. When she has got no coal in her?

Q. Yes.

A. I wouldn't like to say, but I think about 150 tons.

Q. You think her dead weight is 150 tons?

A. Something like that.

Q. What is the weight of her engines?

A. The weight of her engines—Smith can give you that better than I can.

Q. You don't mean to say a vessel 135 feet over all, with a water line of 19 feet, and an average depth as you have given it—

A. It is a matter of figures—if she is drawing 14 feet or if she is drawing 16 feet—when she is loaded she will draw about 16 feet, and it is a very simple matter to figure out the displacement.

Q. You don't mean to say that a vessel of the dimensions you have given has only 150 tons dead weight?

A. When there is nothing in it?

Q. Yes.

A. It may be more than that; I never figured it out, but it is easy enough to figure out.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON

Q. How high would the eyes of an ordinary man be above the deck while standing in the pilot house?

A. About 18 or 20 feet.

Q. How high would his eyes be above the bow of the vessel, on a straight line?

A. 16 or feet,—16 feet, I would say, probably—not any more than that. Depends on the way she is going.

Q. Loaded the way she was the night of this accident?

A. Her bow would probably be at that time say 8 feet out of the water.

Q. And how high would the eyes of a man in the pilot house be above the bow?

A. Probably about 8 feet.

Q. Are there any obstructions between the pilot house and the stem of the boat?

A. Not any.

Q. Are there any obstructions between the pilot house and the stern of the boat?

A. Oh, yes; funnels and smoke-stacks.

Q. That is all?

A. Yes; it takes a pretty tall man to see from the Commodore's wheel house aft out to the stern.

Q. How is the pilot house constructed—are there windows all around?

A. Windows in a half circle.

Q. And there is no bridge,—the pilot house is the bridge?

A. There is no bridge, no.

Q. The pilot house is the bridge?

A. Yes.

Q. What is the length the longest way of the pilot house, approximately?

A. Fore and aft?

Q. No, I mean beam.

A. About 14 feet.

Q. And how large fore and aft?

A. About 8,—6 or 8.

Q. Where is the wheel in that pilot house?

A. The wheel is amidships in the forward part.

Q. And where does the pilot stand?

A. He stands just on the port side of the head of the wheel.

Q. Where is the compass?

A. On the port side of the wheel head.

Q. Where is located the signaling apparatus to the engineer?

A. Just aft of the wheel.

Q. On the port or starboard?

A. No, amidships.

Q. Where is it located with reference to the compass?

A. The compass is a little bit on the port side of amidships, therefore the telegraph to the engine room would be a little behind the compass.

Q. Behind?

A. Yes, behind.

Q. How many feet behind?

A. About 5 feet.

Q. I understand that the telegraphing apparatus to the engineer, that is in the pilot house is 5 feet behind the compass?

A. Just about.

Q. Is the signaling apparatus covered over at all?

MR. GORHAM: We object to that—it is not cross examination—we did not ask this witness anything about this at all.

MR. STRATTON: They went into the construction of the ship, and that is what I was doing.

THE COURT: I think it is carried a little too far.

MR. STRATTON: Exception. That is all.

MR. GORHAM: That is all.

(Witness excused).

(Whereupon court adjourned until 10 o'clock A. M., November 8, 1917).

MORNING SESSION,

November 8, 1917, 10 A. M.

A. W. MYLROIE, the Libellant herein, being recalled as a witness in his own behalf, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. What is the water line length of the barge Bangor?
A. 165 feet.
Q. What is her average width?
A. 36.
Q. And her depth?
A. 11 foot 6 is her average depth.
Q. Loaded?
A. No, that is the water line.
Q. Is she the same fore and aft?
A. 16 foot aft, 15 foot forward.
Q. What is her form, elliptical or otherwise?
A. It is more of a flat bottom.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. How much was she loaded with at this time?
A. About 511 tons—some of those are measurement tons.

MR. STRATTON: That is all.

(Witness excused.)

JAMES L. AVIS, Jr., introduced as a witness on behalf of Libellant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. Will you state your name?
A. James L. Avis, Jr.
Q. What is your profession, sir?
A. Testing and inspecting engineer.
Q. Of what school, if any, are you a graduate?
A. The Virginia Polytechnic.
Q. What course did you pursue there?
A. I had the course in mechanical engineering.
Q. And what did that embrace?
A. That embraced 4 years in the general engineering course, with shop work in both the machine and fabricating departments, laboratory and field work, mathematics, and two years chemistry.
Q. After graduating from the Polytechnic school what did you do—what was your first work?
A. I received an appointment as apprentice in the locomotive shops of the Baltimore and Ohio Railroad.
Q. What was your work there?
A. That was largely in machine shop work, buying tools, and various repairs on parts of locomotives.
Q. Whereabout?
A. That was in the Mount Clare shops in Baltimore.
Q. How long were you in there?
A. I was there,—It was a special year of apprenticeship.
Q. Did you do any laboratory work there?
A. After finishing that apprenticeship I received an appointment in their physical testing laboratory.
Q. What was your work there?
A. That embraced the testing of all materials purchased for construction purposes.
Q. What do you mean by materials—metals?
A. All of the metals—in fact everything the road used almost—axles, iron, steel, journal bearings, etc.
Q. How long were you in the laboratory work?
A. I was in there two years.
Q. Were you there working under supervision, or of your own initiative?
A. Well, in the first few months it was more or less under supervision, and then during the remainder of the time I was largely on my own initiative; I was furnished with the specifications to see that the materials met these specifications.

Q. At the end of those two years what did you do next?

A. I felt the need of a little more drafting experience and went to the Winchester Repeating Arms Company, in New Haven, Connecticut, and was in machine designing for a couple of years.

Q. What character of work?

A. It was automatic machine design.

Q. And at the expiration of those two years what did you do?

A. I went with the firm of Robert W. Hunt and Company—they conduct the largest testing and inspection bureau in the world—was connected with their various offices in New York, Pittsburg, Chicago, as well as representing them as resident engineer in different parts of the country.

Q. Where were their headquarters?

A. Chicago.

Q. How long were you with R. W. Hunt and Company?

A. Eight years.

Q. What was your work with them?

A. It was very general in character—it embraced a great deal of laboratory work, testing and inspection in the rolling mills, fabricating shops, machine shops, and some inspection of erection.

Q. And during that eight years did you have occasion to test material other than mill materials?

A. Oh, yes, I tested all kinds of building materials.

Q. Was your work there of a routine character, or was it experimental?

A. It was both.

Q. What percentage of the eight years, or approximately,—I mean about how much of it was experimental and how much of it was routine, if you know?

A. Well, I would say that approximately 20 per cent would represent experimental and research work.

Q. And at the expiration of those eight years what did you do?

A. I then went with the firm of Sargeant and Lundy, mechanical and electrical engineers.

Q. What work did you do for them?

A. I was their resident engineer on power plant construction.

Q. Where?

A. At Des Moines, Iowa.

Q. How large a plant?

A. It was a two thousand kilowatt installation, em-

bracing transformer house, generating works, coal handling machinery, etc.

Q. How long were you with them?

A. It took barely a year to complete that job.

Q. And after the expiration of that period of one year what did you do—where did you go?

A. I went over to Seattle.

Q. What did you do at Seattle?

A. Installed and built up a commercial testing laboratory.

Q. Did you have anything to start with in the building up of such a laboratory?

A. No, sir.

Q. Built it up from nothing?

A. Built it up from nothing.

Q. And that you have been doing for how long a time?

A. About five and a half years.

Q. And during that time what character of work have you undertaken in that testing laboratory?

A. The testing of all materials of construction—the engineering materials.

Q. You were in charge of the laboratory?

A. Yes, sir.

Q. For whom did you work?

A. It was under the name of the Bogardus Testing Laboratory.

Q. A separate department?

A. Yes.

Q. Of which you were in sole charge?

A. Yes, sir.

Q. For whom did you do testing?

A. Largely the architects and engineers. I did a good deal of Government work in the local United States District Engineer's office.

Q. You mean Major Cavanaugh?

A. Colonel Cavanaugh's office. I tested all the material, for instance, that went into the Lake Washington Canal.

Q. Did you do any work for the Commerce Department?

A. Oh, yes, the Bureau of Lighthouses,—I tested the material that went into several light-house tenders; and I have done a great deal of city work.

Q. Do any work for the Navy at Bremerton?

A. Yes, sir, I have done some testing for Captain Gregory at the Navy Yard.

Q. What is the character of the plant which you have

built up at Seattle—how complete? Just explain it generally.

A. Well, it comprises a strictly modern Universal testing machine with 150,000 pounds capacity. That machine is used in making tensile tests, transverse tests or compression tests of all materials. Then we have other special equipment, such as special gauges, blacksmith testing machines, etc.

Q. Have you visited similar plants on the Pacific Coast at other places?

A. Yes, I visited Hunt and Company's plant in Vancouver, and in Seattle two of the local laboratories, one in Portland, and one in Frisco.

Q. Are there any other plants in Seattle besides yours for this work?

A. Yes, sir.

Q. Now, how do these plants at the other cities, and other plants in Seattle, compare with your plant?

A. My plant is more modern; all the machinery installed has been put in since the other laboratories were installed.

Q. How does your plant compare with these other plants so far as being more fully equipped or otherwise?

A. I would say it has been more fully equipped.

Q. I show you these three pieces of iron heretofore identified by Mr. Mylroie and Captain Foster as parts of the shackle of the barge Bangor, including the pin, and ask you if you have ever seen those pieces before?

A. Yes, sir.

Q. When did you see them first?

A. One of them I saw in April.

Q. Which one, the smaller one?

A. The larger one.

Q. And where did you see it—where did you first see that large piece?

A. In our office.

Q. Where is that?

A. 90 Columbia Street, Seattle.

Q. And what was required of you, if anything in reference to it?

A. I came into the office and that piece, like a great many tests that are submitted to me, I found on my desk, with a note from the stenographer to determine what was the matter with it.

Q. Where is your laboratory situated in Seattle with reference to the office you refer to?

A. It is between Seneca and University, approximately 8 or 10 blocks from the office.

Q. And agreeable to that memorandum you found with this piece, what did you do with this piece then?

A. I proceeded to saw off and file—

Q. There at the office?

A. No, I took it to the laboratory and proceeded to file off and etch the fractured end.

Q. Will you produce the other pieces? If you will assemble those please. Now, I show you a drawing which has been marked Libellant's Exhibit D for identification and ask you what that is?

A. That is a drawing of the shackle.

Q. On what scale?

A. Approximately full size scale.

Q. Who made that drawing?

A. I did.

Q. From what?

A. From these broken pieces.

Q. From the broken pieces of the shackle and pin?

A. Yes, sir.

Q. Now, in this Exhibit D for identification, you have a figure marked 1 on the plan, what is that?

A. That represents the pin.

Q. That is this piece? (showing piece to witness).

A. Yes, sir.

Q. And you have a figure marked 2?

A. That is one loop end.

Q. Which end, the larger end?

A. The larger loop end, yes.

Q. And you have a figure marked 3.

A. The figure marked 3 is the sawed-off end immediately adjacent to that.

Q. Nothing missing between No. 3 and No. 2?

A. Nothing missing between No. 3 and No. 2.

Q. Did you saw that off yourself?

A. Yes, sir.

Q. Now, we have figure No. 4.

A. Figure No. 4 was sawed off at the fractured end.

Q. Figure No. 4 was sawed off of the other loop end at the end of it?

A. At the end of it.

Q. And figures 5 and 6?

A. That represents two specimens of tensile tests taken from between this sawed-off end and the loop end.

Q. And No. 7 represents?

A. The smaller of the loop ends.

Q. Now, this first diagram, on the left hand side of this sheet, is called what?

A. Oh, that is the plan.

Q. And the diagram on the right hand side of the sheet of Exhibit D for identification is what?

A. That is the end elevation. This plan is turned at 90 degrees—you are looking straight at that plan turned 90 degrees.

Q. When did you first see the pieces of this shackle marked on Libellant's Exhibit D for identification 7, 6, 5 and 4?

A. That was about October 29th.

Q. I will ask you if all of the material of the shackle which was first handed you is contained in figures 2 and 3?

A. Yes, sir.

Q. That was when?

A. In April—this last April.

Q. You didn't have the pin, did you?

A. I didn't have the pin.

Q. I will ask you if all of the part of the shackle which was given you in October is contained in the pieces here present which are represented by figures 4, 5, 6 and 7?

A. Yes, sir.

Q. And is the fractured surface of the piece marked figure 3 in the same condition as when you first received it?

A. Yes, sir.

Q. And is the fractured surface of the piece marked figure 4 the same as when you received it?

A. Yes, sir.

Q. What were you required to make in April upon the piece of the shackle handed you then?

A. There was a written note from my stenographer asking me to determine whether there were any defects in the shackle.

Q. And did you make an examination sufficient to determine that?

A. Yes, sir.

Q. I will show you a paper, which I will ask to have marked Libellant's Exhibit E for identification, and ask you what that is?

A. That is my report of April 26, 1917, on the investigation of this larger fractured end.

Q. Now, will you read the report?

A. In its entirety?

Q. Yes, except the address—read the body of the report,—to whom is it addressed?

A. Mr. A. W. Mylroie. "Regarding the samples of broken shackle submitted these laboratories yesterday and which you described as having broken in the service of towing, we would report as follows:

First—You state that the material from which this shackle was made is known as "Russian Steel." Your attention is called to the fact that this material is iron.

Second—Etching one of the broken ends develops the fact that a small slag spot is present in the center, which occupies approximately 5 per cent of the area; otherwise the material is uniform in texture and could be considered a fair sample of forging.

Third—The area of the bar is 1.66 square inches. Good wrought iron rarely exceeds in tensile strength 48,000 pounds per square inch. On this basis a load of 40 tons applied on the bar would be sufficient to rupture same."

Q. 40 tons?

A. 40 tons. "Fourth—Judging from the appearance of the old fracture, it is evident that this specimen was broken by a stress very suddenly applied and which undoubtedly would have broken a shackle made from a much larger bar.

Fifth—With the exception of the small slag at the center, as noted above, the shackle is entirely free of defects.

Sixth—A small amount of slag is bound to be present in merchant iron and engineers in proportioning parts are expected to take this into consideration."

Q. How did you measure the area of the bar?

A. With a planimeter.

Q. How accurate is that in measurement?

A. It is absolutely accurate, to the hundredth part of a square inch.

Q. Did you measure the area of the slag?

A. Yes, sir.

Q. What did you find that to be, do you remember now?

A. I didn't incorporate that in my report, but it was five per cent of the total area, which would be about 8/100 of a square inch.

Q. At the time you made this first experiment did you know whose shackle this was?

A. No, sir.

Q. Or where it came from?

A. No, sir.

Q. Or who caused it to be submitted to your laboratory for test?

A. Not until after my tests were conducted and I got the notation from the stenographer in the office.

Q. Now, what do you mean by etching?

A. Etching is a process that is used by metallurgists to determine absolutely whether or not there are any laminations or checks of any nature in the surface of iron and steel.

Q. Figure 2, was that etched?

A. Yes, that surface was etched.

Q. And was the smooth surface in figure 3 etched?

A. Yes, sir.

Q. And what did you find as a result of that etching?

A. There were no signs of laminations or checks at all,—merely the development of that small slag spot.

Q. The other pieces were not etched, of the other loop?

A. No, sir.

Q. You say in October you received the other part of the shackle—the other loop. Now, what did you do with that?

A. That was taken to a machine shop and cut through.

Q. So that he had a section of the whole which would be represented, one section by figure 4, and one section by figures 5 and 6?

A. Yes, sir.

Q. Before 5 and 6 were apart?

A. Yes.

Q. And then they were returned to you?

A. Yes, sir.

Q. And what did you do then with them?

A. I made a complete tensile test of the specimen.

Q. Of the intermediate section?

A. Of the intermediate section.

Q. Represented by figures 5 and 6?

A. Five and six.

Q. I will ask you how that loop is made on a shackle.

A. It is first, in its original size, the size of the bar from which the shackle is to be made,—whatever size the shackle is the original bar is that size—that is, that is the classification of the shackle. If the shackle is made from an inch bar it is an inch shackle; if it is made from 2 inch bar, it is a 2 inch shackle. A sufficient length is cut off of that bar, which is forged, the ends are scarfed out and welded under heat, and hammered, making an integral part of the loop.

Q. Now, what part of the shackle did you submit to the tensile strength experiment test?

A. That portion which would be described as intermediate between 4 and 7; and it was taken right through the center—in the center of the weld.

Q. So that it was the welded section of the shackle. Did I ask you what tensile strength is?

A. The tensile strength of a piece of steel or iron is that strength in pounds per square inch necessary to pull same in two.

Q. Now, which is the weaker part of the shackle—through the welding or otherwise, or above the weld?

A. It is conceded generally that the weakest part is in the weld.

Q. Why?

A. Because there is a slight possibility of a little slag being present, or else there is a possibility of slight lamination—it is generally conceded that through the weld is the weakest part.

Q. It is generally conceded—conceded by whom?

A. By engineers and metallurgists.

Q. What is a slag?

A. A slag is rather the result of combustion in the heating of the pieces to be welded being in the cold and the fire—it is a chemical combination, the result of combustion.

Q. What was the result of this tensile test that you made in October?

A. I could probably recall that from memory, but I have my figures with me.

Q. Just refer to your book,—is it a memorandum made at the time?

A. At the time, yes.

Q. You made it yourself?

A. Yes.

Q. All right.

A. First, in making a tensile test it is very necessary to know absolutely what your cross-sectional area is. Here it was 1.66 of a square inch.

Q. You are speaking of the slag now?

A. Of the tensile strength specimen.

Q. That is, figures 5 and 6?

A. Yes, sir.

Q. Go ahead.

A. The load necessary to break that specimen was 10,470 pounds, which divided by the area gives us the tensile strength in pounds per square inch.

Q. Let me understand—these figures 5 and 6 were one piece before the test?

A. They were originally one piece.

Q. And the shaft of the shackle taken down to the diameter at the largest piece of these figures 5 and 6?

A. I probably better explain that this specimen was very short.

Q. Which specimen?

A. This specimen represented by 5 and 6 was very short and for that reason it could not be gripped in the jaws of the testing machine, and we have sockets that are tapped for standard ¾ thread, which are about 8 inches long so that one end can be screwed on this end, and the other end on this one, and then the sockets are gripped in the jaws of the machine and the load applied directly on the specimen. That is the small part of figure 4—the diameter here (indicating)—

Q. That is the smallest diameter of the figures 5 and 6?

A. Yes, sir; in other words, the shank of that specimen.

Q. But was this section which now consists of 5 and 6 only the largest diameter when it was in the shackle—was it taken from one of these bars?

A. It was taken from out of the center of one of these bars.

Q. Was it reduced to this size first?

A. It was reduced to this size first, yes—turned to fit the standard size. It is recognized that a standard test of a specimen, it is turned to a half inch size.

Q. Now, go ahead—that is what I wanted to determine.

A. That breaking load of 10,470 divided by the area gives a tensile strength of 52,300 pounds—that is per square inch.

Q. What would you say from that experiment was the tensile strength of that shackle?

A. That tensile strength of 52,300 pounds per square inch with a shackle of 1.66 square inches, would give an actual strength to the shackle of 86,400 pounds or 43.4 tons.

Q. Now, does that mean the breaking load?

A. The actual breaking load on the shackle—what would be sufficient to break the shackle.

Q. Did the section of the shackle, consisting of figures 5 and 6, which you submitted to the tensile strength, develop any elastic limit?

A. Yes, sir.

Q. What?

A. Developed an elastic limit, actual load, 6850, or on the square inch basis, as we express it, elastic limit in pounds per square inch of 34,250.

Q. That would be the resultant?

A. That would be the resultant, yes, sir.

Q. Did the specimen subjected to the tensile test develop any elongation, or otherwise?

A. 50 per cent elongation.

Q. What is it measured by?

A. Triangulated.

Q. I will ask you if the slag is present in both loops—that is, not in the loop itself, but both ends of the shackle?

A. Yes, sir.

Q. And I will ask you if the section which you subjected to the tensile test contained a slag?

A. Yes, sir.

Q. Can you see it with the eye there in the figures 5 and 6?

A. Yes, sir.

Q. And the section with the slag, which was submitted to the tensile test, developed a breaking load at 52,300 pounds to the square inch?

A. Yes, sir; or applied to the area of the bar of 86,400 pounds.

Q. 43 tons?

A. 43.4 tons breaking load.

Q. Now, look at the piece which we marked figure 3 and the piece which we marked figure 4—those are the fractured ends of the shackle?

A. Yes, sir.

Q. What do they show?

A. They are what you term a crystallized fracture.

Q. What is crystallization in speaking of iron?

A. It is the physical condition due to a violent rupture produced by sudden impact.

Q. Now, those fractured ends, which are marked on the plan figures 3 and 4—figure 4, for instance, was it, or not, adjacent to the section which was subjected to the tensile test?

A. It was immediately adjacent.

Q. Figure 3—the piece marked figure 3, was or was not that adjacent to the piece marked figure 2?

A. It was immediately adjacent.

Q. Did you find any crystallization in the tested section?

A. None whatever.

Q. How did you determine that it was not crystalline in character?

A. Its ductility for one thing, and its fracture for another. It had a fibrous fracture, which is not characteristic of crystallization.

Q. Did the tested section have a fibrous fracture?

A. Yes, sir.

Q. And you found no crystallization in the tested section?

A. None whatever.

Q. Did you find any chemical change existing or having taken place?

A. No indication of it.

Q. And from your experiments and tests you put the breaking load of this particular shackle at how many tons?

A. 43.4 tons.

MR. GORHAM: I will ask Captain Bjerre what was the size of the hawser they had with them.

CAPTAIN BJERRE: 1¼ inch.

Q. Mr. Avis, are you familiar with the work known as Trautwine?

A. Yes, sir.

Q. And what is Trautwine?

A. It is an engineer's pocket book—it is a reference book. It is recognized as a standard book of reference.

Q. Recognized by whom?

A. By engineers.

Q. Whereabouts?

A. All over the world.

Q. How long has it been so recognized?

A. For perhaps two generations—three generations, in fact.

Q. Does Trautwine give the breaking load of steel hawser?

A. Yes, sir.

Q. And of iron chains?

A. Yes, sir.

Q. And steel chains?

A. Yes, sir.

Q. Manila hawser?

A. Yes, sir.

MR. GORHAM: I will ask Captain Bjerre, what is the largest size of Manila hawser used in these waters for towing in times past?

CAPTAIN BJERRE: That is pretty hard to tell—depends on different tugs.

MR. GORHAM: What was the largest size you know of being used?

CAPTAIN BJERRE: The largest size I know of being used was 11 inches.

MR. GORHAM: That is for towing barges?

CAPTAIN BJERRE: That is for towing ships mostly —not for towing barges.

Q. Will you refer to Trautwine and tell us what Trautwine states is the breaking load of a 1¼ inch steel wire or hawser?

THE WITNESS: Yes.

MR. STRATTON: Tensile strength?

MR. GORHAM: The breaking load.

MR. STRATTON: That means tensile strength.

MR. GORHAM: Yes, the breaking load is the tensile strength.

A. Yes, sir; under the head of "Haulage and Transmission Rope," he quotes two brands.

Q. What edition are you reading from now—what edition of Trautwine?

A. This is the 1906 edition.

Q. Does it say what edition it is?

A. It is the 18th edition.

Q. What page are you reading from?

A. Page 977.

Q. Go on.

A. It gives the breaking strength in tons. 1¼ inch, brand Hercules, 80 tons; crucible cast steel, 54; that is 1¼ inch.

MR. GORHAM: I will ask Captain Bjerre if he knows what the material was in the steel hawser?

CAPTAIN BJERRE: It is a flexible steel hawser, made for that purpose—towing purposes.

Q. What is the tensile strength of anchor chains—1½ inch anchor chain—iron?

A. This is on page 915. 1½ inch, 105,280 pounds, or 47 tons.

Q. And what is the breaking load or tensile strength of 11 inch Manila hawser?

A. On page 975—you mean circumference?

Q. Yes, circumference.

A. In tons, 27.4.

Q. And 14 inch Manila hawser?

A. 14 inch circumference, gives a breaking load of 4[illegible] tons.

Q. Now, I will ask you with a shackle of the tensile strength of 43.4 tons, using iron in construction, do engineers adopt any point below the breaking load for commercial purposes?

A. Oh, they all use a factor of safety.

Q. What is the factor of safety of wrought iron?

A. It is usually figured, particularly in cases where it is liable to be subjected to a high stress, a factor of safety of three.

Q. What does that mean?

A. That means that they can rely absolutely on one-third of its actual breaking load.

Q. So the factor of safety of the shackle, if its breaking load was 43.4, would be what?

A. Why, it would be one-third of 43.4—about 14.

Q. 14.14, wouldn't it?

A. 14.46.

Q. You heard Mr. Mylroie testify in reference to the dimensions of the barge?

THE COURT: Right there, before you get off that subject. Are you giving the tensile strength of a quiescent load or a suddenly applied load, or is there any difference?

A. Yes, sir, there is a difference. A quiescent load is one that will develop the full strength; a load suddenly applied is one that would produce a violent rupture causing crystallization, and would be evidenced by the character of the fracture.

THE COURT: What would you give the tensile strength for a quiescent load?

A. Tensile strength, actual breaking load, applied gradually?

THE COURT: Suppose the tensile strength of a suddenly applied load was so much—it would depend on how suddenly it was applied, would it not?

A. Yes, sir.

THE COURT: And there cannot be any fixed relation, then, between the tensile strength of a piece of material under a quiescent load and under a suddenly applied load, because the tensile strength under a suddenly applied load depends on the suddenness with which it is applied, as I understand it?

A. Yes, sir.

THE COURT: It is bound to be less, however, for a suddenly applied load than for a quiescent load, but how much less you cannot tell, depending upon how suddenly it was applied?

A. I do not think I quite understand your question.

THE COURT: There is a difference between the tensile

strength under the strain of a quiescent load and the tensile strength under the strain of a suddenly applied load?

A. Oh, no, any material will resist its full strength, but the crystallization I have spoken of in here was produced by the stress being suddenly applied,—it would take as much actual strength to break that—it is the suddenness with which it is applied—

Q. What is Trautwine speaking of and what are you speaking of when you say the tensile strength of this shackle is so much?

A. It is the actual breaking load—it is the actual amount of load that is required to pull it in two.

Q. Sudden or quiescent?

A. Sudden or quiescent.

THE COURT: Would there be any difference in the tensile strength?

A. Oh, no; its tensile strength is its tensile strength. It is the rate at which the load is applied that produces that crystalline fracture in a homogenous material like iron, steel or bronze,—you get the same result in bronze.

THE COURT: If I suspend one substance from another and very gradually apply the weight, it would take more weight to break that material under those conditions than if I gave it a sudden jerk, wouldn't it?

A. You are bringing a different problem in there, your Honor. You are bringing in mass, velocity and time.

THE COURT: The tensile strength is an absolute quantity?

A. An absolute quantity, yes, sir—can be determined absolutely.

THE COURT: The number of pounds applied would be determined by the—

A. The number of pounds applied, as you spoke of rapidity, would be determined through the product of the mass times the velocity times the time, which brings in a very different calculation than does the tensile strength.

THE COURT: The tensile strength means the amount applied, no matter how arrived at?

A. Exactly—its ultimate resistance.

Q. (By Mr. Gorham): What character of iron is this shackle that we have been discussing?

A. Well, that is specially classed as good merchant iron.

Q. What kind of iron—cast iron?

A. Oh, no, sir; that is wrought iron.

Q. You heard Mr. Mylroie give the dimensions of his barge this morning?

A. Yes, sir.

Q. And they are similar to the dimensions that he has stated to you before and on which you figured the displacement of the barge?

A. Yes, sir.

Q. Under those figures what is the displacement of the barge Bangor?

A. I could figure that for you in a very few minutes. Approximately it amounts to a little over 1800 tons.

Q. With the figures as he has given them this morning, the width 30 feet, the average depth 15 feet, the length 165 feet or 160 feet you figured, and a draft of 15 feet fore and aft—

A. That gives roughly 2000 tons.

Q. That is approximate?

A. Yes, sir.

Q. You heard Captain Bjerre's testimony yesterday giving the dimensions of the tug Commodore?

A. Yes, sir.

Q. You took a memorandum of that?

A. Yes, sir.

Q. And you heard his statement that the vessel is semi-elliptical?

A. Yes, sir.

Q. From his statements can you determine the displacement of the tug?

A. Yes, sir.

Q. Have you so determined it?

A. Yes, sir.

Q. Will you give it to us—what was the result?

A. 420 tons.

Q. Is that semi-elliptic or elliptic?

A. That is elliptic.

Q. What is semi-elliptic?

A. 504 tons.

Q. Now, Mr. Avis, assuming this tug was towing this barge through the sea at the rate of 5 miles an hour, with a fair wind, having a velocity of 30 miles an hour, and a fair tide, and the barge and tug were connected by a towing device consisting of 1¼ inch steel hawser, 180 fathoms out, 1½ inch iron chain leading from the hawser pipes to the barge, and the anchor chain and the steel hawser connected by means of this shackle,—What was the dimension of the shackle?

A. 1½.

Q. One and one-half inch iron shackle, and assuming that the tug suddenly ported her helm, put her helm hard over so as to produce a change in her former course of 90 degrees, can you determine whether or not there would be any increase in the load applied to the towing device in excess of the load so applied when they were going along tandem, along the same course before the change took place?

A. Yes, sir.

Q. How do you determine that?

A. That brings in again the matter we were speaking of a few minutes ago,—the impact being determined by the product of the mass times the velocity times the time.

Q. Have you figured it out?

A. I have figured it out, yes, sir.

Q. And you have it on paper there?

A. Yes, sir.

Q. Just give it to us fully as you care to so it will be understood by the Court and all of us—just what you have done, and what is the result.

A. That belongs to the metric system—

Q. What belongs to the metric system?

A. The basis of this calculation.

Q. Why do you use the metric system?

A. Because it is nearer right—it is right.

Q. What other systems are there?

A. There are various systems. A great many engineers very frequently devise their own systems, but this system as adopted, known as the Universal system, is the most scientific, and is used in all scientific investigations.

Q. By whom?

A. By engineers and scientists. It is called the Gram Centimeter Second, and the basis of it is the dyne.

Q. What is a dyne?

A. A dyne is the force applied through the application of one gram at a rate of one centimeter in one second and has a definite value on the basis of pounds which is represented by the factor .000002247.

Q. That is a decimal?

A. Yes, sir. Now, then, on the basis of the mass,—I might go back a little—

Q. Taking the tonnage of the tug as semi-elliptic, 504 tons.

A. Yes; that is reduced to the Gram basis; the speed on the basis of 5 miles an hour reduced to feet per second would be 7.3 feet per second; the velocity at which the load was applied, that gives—

Q. You mean the increased load?

A. Yes, sir; that gives a load of 114.48 tons applied on the towing device.

Q. That is the total load?

A. That is the total load.

Q. Will you explain how you worked that out—your formula, taking the displacement of the tug as 504 tons—as semi-elliptic.

A. The formula there is the mass times the velocity times the time. That was 504.8 tons, which is 100,961 pounds, which has to be worked out on the basis of the pounds reduced to grams.

Q. Grams of the metric system?

A. Grams of the metric system, in order to bring in the formula of mass times the velocity times the time—grams, centimeters and seconds. That gives a total of 457,-961,364. The distance travelled, at the rate of 5 miles an hour, in one second is 7.3 feet, equivalent to 222.5 centimeters, which multiplied gives a figure—

Q. Multiplied by what?

A. The former amount, 222.5 times the 457,961,364, gives 101,896,403,490. This factor that I spoke of a while ago as being .000002247 is the weight in pounds, which multiplied by the last figure I have given gives 228,961 pounds, which is the equivalent of 114.48 tons.

Q. Now, the 114.48 tons represents what?

A. Represents the actual load applied on the towing device.

Q. Under the conditions that I have given you?

A. Under the conditions which you gave me.

Q. And that exceeds the breaking load of the towing device, with the safety factors, as I have given them to you?

A. Yes, sir.

Q. What would be the dimension in area of a shackle necessary to take that load of 114.48 without breaking?

A. You would have to place that back then on the actual pound basis of 228,961—that was the actual load in pounds applied. The tensile strength per pound per square inch, of the shackle, is 52,300. If you divide the tensile strength in pounds per square inch into the actual load applied it will give the number of inches—square inches in area necessary to take the load that was applied.

Q. And have you figured that result?

A. The 52,300 divided into 228,961 gives 4.37 square inches necessary.

Q. And how would such a shackle necessary to resist the 114.48 tons compare with the shackle which has been identified here and concerning which you have testified?

A. The breaking load in tons of the shackle is 43.4—

Q. Of the shackle you have testified about, and tested?

A. Yes, sir; that divided into the 114.48 tons which was actually applied on the towing device, gives 2.63 times the size of the shackle necessary to take that load.

Q. Necessary to take the load of 114.48 tons?

A. That is right.

MR. STRATTON: A shackle 2.63 times as large as the present shackle was necessary to sustain the load of 114.48?

A. Yes, sir.

Q. Now, if the speed or velocity of the tug were increased beyond the velocity given you of 5 miles an hour, would that increase the impact under the conditions I have given you?

A. Yes, sir.

Q. It would increase the breaking load from 114.48 upward?

A. Yes, sir.

Q. Now, explain the apparent discrepancy in the breaking load of a 1½ inch anchor chain and a 1½ inch shackle, if you can.

A. I understand that the chain was iron?

Q. Yes.

A. And it was of a reenforced type?

MR. GORHAM: I will ask Mr. Mylroie, was the chain of a reenforced type?

MR. MYLROIE: Yes.

MR. GORHAM: With a bar in the center?

MR. MYLROIE: Yes.

THE WITNESS: The position of that reenforced bar in the center of the link reduces the stresses as applied in the chain.

Q. And increases the resisting power?

A. And increases the resisting power. Further, there is another factor that enters in there and that is the working of the metal at the time of fabricating has a tendency to make a more homogenous structure—

Q. In which case, the shackle or the anchor chain?

A. The chain gets more working, as a rule,—much more working in the fabricating—in the manufacture of these separate links, which has a tendency to make a little more homogenous structure of the metal and through that produces perhaps a little higher tensile strength.

Q. Now, to go back to the subject of crystallization, did you find any crystallization in any other part of the shackle which you examined or tested other than the surface fracture?

A. None whatever.

Q. Figure 3 and figure 4?

A. None whatever.

Q. So that immediately adjacent to the fractured surface, which you say is crystalline, you found the metal not crystallized?

A. It is not crystallized.

Q. State whether or not in metal of this character if it is crystallized before fracture, that crystallization is uniform or otherwise throughout the metal?

A. If it is crystallized before fracture, yes—crystallized through improper heat treatment, which is a chemical condition, it would be uniform throughout its structure.

Q. And from your examination and tests you are satisfied that the crystallization present in these specimens resulted from what?

A. From a very sudden impact, causing a violent rupture of the specimen.

Q. And it was confined to what locality?

A. This small surface immediately at the point of fracture.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. You say you think this crystallization that you see on the surface of the two exhibits was caused by a violent and sudden impact?

A. Yes, sir.

Q. If the strain which broke the shackle was not sudden, then would you say that this crystallization was due to some other cause?

A. No, not for that reason alone.

Q. Well, but I am not asking you for that reason alone, but the breaking would be due to some other cause,—if the element of suddenness was not present then the crystallization would be caused from some other reason than that you have stated?

A. If the element of sudden impact was not present?

Q. Yes.

A. There would have been no crystallization.

Q. There would not?

A. No, sir.

Q. And you judge from the fact that you see crystallization that there was a sudden impact?

A. Yes, sir.

Q. Could that sudden impact have taken place at any prior time than the time the shackle broke?

A. No, sir.

Q. You don't think it could. Why don't you think it could?

A. Because if it occurred at a prior time it would have broken the shackle.

Q. You think there could not have been that crystallization without a parting of the shackle?

A. No, sir.

Q. An actual parting. Wrought iron can become crystallized without being broken?

A. Yes, sir.

Q. What else would cause crystallization than sudden impact?

A. Improper heat treatment—over-heating.

Q. That is all, is it?

A. That, and possibly the presence of a high per cent of sulphur. A high sulphur content would be apt to produce crystallization, but that would be uniform throughout its structure—it would not be local—it would be in the general mass.

Q. What do you mean by the application of heat—you mean application to the fire?

A. Yes, sir.

Q. And that is all?

A. In the forging process.

Q. So wrought iron cannot become crystallized by use and jarring?

A. Unless it receives a sufficient impact to rupture it. It is the violent tearing apart that produces the crystallization.

Q. You think the jarring must be violent, do you, to cause crystallization?

A. Yes, sir.

Q. In a piece of iron like that shackle what extent of violence in the jarring would be necessary to crystallize it?

A. Anything that would exceed its breaking load.

Q. And that is all?

A. Applied suddenly.

Q. Is that the only way? I am speaking now of crystallization throughout—I am not speaking of a sudden crystallization caused by a strain sufficient to break—I am

speaking now of crystallization in general. Is the only way a wrought iron shackle can become crystallized is by an extreme violent jar or the application of heat?

A. Those are the only ways.

Q. Then you say that a piece of wrought iron, such as that shackle, could not become crystallized by constant jarring or constant use—constantly being thrown around on surfaces?

A. No.

Q. It could not. Do car wheels become crystallized?

A. Yes, sir.

Q. What do they become crystallized from?

A. Largely, the impact of traffic.

Q. Is that sudden and violent?

A. Very often.

Q. Answer, is it sudden and violent?

A. Well, it is—

Q. Answer my question.

A. But you are talking about an entirely different material—one is cast iron and the other is wrought iron.

Q. So, in your opinion wrought iron does not become crystallized except by the application of heat or a sudden violent impact?

A. Yes; but the character of crystallization is entirely different in the two cases. One is purely surface, the other is throughout its mass.

Q. Now, I am asking you the question, if you say that wrought iron cannot become crystallized except through the applicatoin of heat or a violent sudden impact?

A. Yes, sir.

Q. That is the only way. You said that the tensile strength of 1¼ crucible steel wire was 54 tons, didn't you?

A. I could verify that by—

Q. Refer to your book, please, and see.

A. 1¼—54, yes, sir.

Q. That is crucible—

A. Crucible cast steel.

Q. Is that all in one piece?

A. That is a composition of wires.

Q. A number of wires stranded together?

A. A certain number of strands of a certain number of wires.

Q. How many strands?

A. Well, there is no set standard; usually they are 6-19.

Q. What do you mean, 6-19?

A. Six strands, 19 wires.

Q. In each strand. That book doesn't show how many strands that crucible cast steel wire is made of, does it?

A. No, sir, it does not.

Q. And you don't know how many it is made of, do you?

A. Yes, it is made of six strands of 7 wires each—this type that I quoted.

Q. What does the book say about that? Now, read it.

A. Simply speaks of transmission and haulage rope, with 6 strands of 7 wires each.

Q. And where is the number of tons, now, applicable to this?

A. Well, that is rope there.

Q. That is rope, too, isn't it?

A. Wire rope, yes.

Q. And so far that book doesn't show the number of strands or the number of wires per strand in this 1¼ steel wire you have spoken of, does it?

A. Yes,—this is the table, you see, on page 977. Under the caption of "Haulage and transmission rope" it gives these various diameters, from 1¼ down to ½, with the two types, Hercules and crucible steel.

Q. But I say that that does not show how many strands or how many wires in a strand that rope is made of?

A. No, that table does not.

Q. Now, does the tensile strength of wire rope vary with the number of strands and the number of wires in a strand?

A. Yes, sir; that would depend, of course, also on the diameters of the individual wires.

Q. And that is not shown in that table that you have testified to?

A. Not that particular table, no, sir.

Q. Well, you have testified now as to the tensile strength. When you said it had a tensile strength of 54 tons you haven't testified in reference to a wire rope with any definite number of strands, or any definite number of wires in a strand, have you?

A. I have testified to the standard size used in haulage and transmission, as listed by Trautwine.

Q. But it does not show the number of strands nor the number of wires in a strand?

A. Not in this particular table.

Q. And you say that the tensile strength of a wire rope depends, to some extent at least, on the number of strands and the number of wires in a strand, and the size of the wire?

A. Yes.

Q. Which has the greater tensile strength, assuming that the diameter of the cable or rope is the same, one having a great number of strands and a great number of wires in a strand, or one having few strands and few wires in a strand?

A. The first instance you quoted would have the greatest tensile strength.

Q. The greater the number of strands and the greater the number of wires the greater the tensile strength, is that right?

A. Provided there is a uniformity of strength maintained in the wires.

Q. But as I say, a wire cable 1¼ inch in diameter would have a greater tensile strength if it had a large number of strands and a large number of wires in a strand than if it had only a few strands with fewer wires in a strand?

A. Certainly.

Q. Does that table give the tensile strength of flexible steel wire, with six strands, of 1¼ inch diameter?

A. Six strands of how many wires?

Q. Nineteen.

A. Yes, sir.

Q. What does it give?

A. The table that I used was the catalogue listed by John A. Roeblings Sons Company, giving the overcoming stress on their wire ropes, and I don't remember just what that was, but I think I either have it in my pocket or have it at the hotel—I had it in figuring up these stresses.

Q. Then in figuring out the tensile strength of this wire rope you did not use that book you have in your hand, Trautwine?

A. Oh, yes.

Q. I did not understand your last answer then. I asked you, didn't I, if that book showed the tensile strength of flexible steel wire of six strands, 19 wires to a strand, where the diameter of the wire rope was 1¼ inches? I am just asking you if that book gives that?

A. No, this table does not give that.

Q. Do you know whether the tensile strength would be greater or less than 54 tons—you cannot tell, can you?

A. I don't quite understand that question.

Q. You gave the tensile strength of 1¼ crucible cast steel wire, without knowing the number of strands or the number of wires in a strand, as being 54 tons, according to that book?

A. Yes, sir.

Q. Now, you don't know whether that 1¼ crucible steel wire has a greater or less tensile strength than an inch and

a quarter flexible steel wire having six strands and 19 wires to the strand?

A. My impression is that that is less than as listed by Roeblings in their catalogue.

Q. That is to say, that the one I have last mentioned has a less tensile strength than 54 tons?

A. That is six strands, 19 wires?

Q. Yes. Has a less tensile strength than 54 tons.

A. No, I think it is higher; my impression is that it is higher.

Q. But you are not certain about that?

A. Well, I am reasonably certain.

Q. Have you a catalogue of Roeblings that would show that?

A. Yes, sir.

Q. Will you bring it up after lunch?

A. Yes, sir.

Q. You spoke of the tensile strength of a 1½ inch anchor chain and the strain on the anchor chain as it comes out through the hawser pipe. Now, if the force had been applied to it at an angle of 90 degrees would it break at a less strain than 47 tons?

A. No, sir.

Q. It would not. In other words, it would not make any difference whether that anchor chain was in a bight when the strain was being applied to it or whether it was pulled out straight?

A. No, it gets the same action.

Q. Then, as a matter of fact the turn or angle at which the force was applied has nothing to do with the point at which the chain or shackle would break?

A. Not in a chain, no.

Q. Does it in a shackle—

A. Not in that unit.

Q. Does it in a shackle?

A. No.

Q. Then the fact that the force applied to the shackel at the time it broke was at an angle of 90 degrees, say, would make no difference—it would be just the same if the force had been applied straight out?

A. I don't quite get that question.

Q. Does the angle at which the force is applied make any difference in the amount of strain that will break a given object, such as a shackle or a chain?

A. Not in that unit it would not—in the chain and shackle it would not.

Q. In the chain and shackle it would not?

A. In the chain and shackle it would not, or in that towing unit, because it is a flexible unit.

Q. What do you mean by saying it is a flexible unit?

A. It is not rigid.

Q. Now, you stated that assuming the tug was going at 5 miles an hour, with fair wind and tide, that it had 1¼ steel hawser 180 fathoms long, 1½ inch anchor chain, and shackle 1½ inch, and assuming that the tug put her helm hard over so as to change the course 90 degrees, that the force applied to the towing device was 114.48 tons—did you take into consideration there the fact that the barge was also in motion?

A. I took that on the assumption that the load was applied at 90 degrees.

Q. I see. If that load had been applied when both vessels were standing still and the force had been applied suddenly at 90 degrees—

A. Both boats could not have been standing still.

Q. The front boat was moving and the back boat standing still?

A. Yes.

Q. Now, as a matter of fact if the barge was attached to the tug by 180 fathoms of chain, the barge was moving just as fast as the tug, wasn't it?

A. Not at that angle or under those conditions.

Q. You have considered then in determining this 114.48 tons that the barge was at a stand-still?

A. No, that the load was applied—not that the barge was at a stand-still.

Q. That would be just the same, wouldn't it?

A. Approximately so.

Q. Now, what difference would it make in the amount of the load applied if the barge were also running 5 miles an hour, substantially in the same curve that the tug was running?

A. That would be, of course, difficult to determine. It would bring in certain factors; that would be hard to say, and would require very accurately laid out instruments to determine.

Q. So you do not now and are not able to inform the Court what load would be applied to the towing device under those conditions?

A. I do not understand that question.

Q. So you do not know and are not able to inform the Court what load would be applied to the towing device under those conditions—that is, where the barge was following at the same rate of speed that the tug was going?

A. That can be determined.

Q. Will you do it during the noon hour?

A. I don't know whether—I haven't just the equipment here to make such a calculation.

Q. Then you are not able to give the Court that information?

A. Not very accurately.

MR. GORHAM: May I now offer these parts of the shackle and pin in evidence, and the diagram and plan in evidence, and also the report, and ask that they be marked for identification?

MR. STRATTON: That is all right.

THE COURT: Let them all be marked.

(Whereupon the said exhibits were marked as follows: Plan, Libellant's Exhibit D; pin of shackle, Libellant's Exhibit D-1; the longer loop of shackle, Libellant's Exhibit D-2; the smaller fractured section, Exhibit D-3; the larger fractured section, Libellant's Exhibit D-4; the two sections submitted to tensile test, each threaded on one end, Libellant's Exhibits D-5 and D-6; the smaller loop of the shackle, Libellant's Exhibit D-7; report of Mr. Avis, Libellant's Exhibit E.)

(Whereupon Court adjourned until 2 o'clock P. M.)

AFTERNOON SESSION,

NOVEMBER 8, 1917, 2 o'clock P. M.

JAMES L. AVIS, Jr. On the witness stand.

CROSS EXAMINATION (Cont'd.)

BY MR. STRATTON:

Q. Mr. Avis, if a piece of wrought iron, or other object, has a given tensile strength, will it break the first time there is applied to it a strain in excess of that given strength?

A. Yes, sir.

Q. I will ask you whether or not, in your opinion, the break in this shackle occurred at identically the same time that this strain you have spoken of was applied to the shackle?

A. Yes, sir.

Q. In determining the strain of 114.48 tons, did you take into consideration the length of the hawser?

A. No, sir.

Q. You did not. Would the length of the hawser be a factor in determining that strain?

A. Merely through its weight.

Q. Weight would depend on the length of the hawser, would it not?

A. Yes, sir.

Q. And the bight the hawser had, wouldn't it?

A. What do you mean by the bight?

Q. The bight is the bend between the barge and the tug.

A. No, merely the weight.

Q. Just the weight?

A. The weight.

Q. Would the fact that the hawser was in the water have any effect as a matter to be considered—as an element?

A. It would have a slight lessening effect.

Q. Can you tell to what angle the tug, under the conditions given to you by Mr. Gorham, would have to be turned in order to create a strain of 40 tons?

A. I merely figured on the basis that Mr. Gorham stated to me.

Q. So you are not able to inform the Court what angle, under the conditions Mr. Gorham gave to you, the tug would have to be turned in order to create the strain of 40 tons which you say would be sufficient to break the shackle?

A. 43.4 I said.

Q. 43.4, to break the shackle.

A. That was on the basis of 90 degrees, at that load?

Q. (Question read to the witness as follows): So you are not able to inform the Court what angle, under the conditions Mr. Gorham gave to you, the tug would have to be turned in order to create the strain of 43.4 which you say would be sufficient to break the shackle?

A. It would figure back the opposite way.

Q. I am not asking you what it would figure—I am asking you if you are able to state the angle.

A. Yes—it was on an angle of 90 degrees?

Q. (Question again read to the witness as follows): So you are not able to inform the Court what angle, under the conditions Mr. Gorham gave to you, the tug would have to be turned in order to create the strain of 43.4 which you say would be sufficient to break the shackle?

A. I still do not understand your question.

Q. You have stated that given the conditions Mr. Gorham stated to you, a change of course of the tug of 90 degrees would create a strain of 114 tons, or thereabouts, didn't you?

A. At that angle, yes, sir.

Q. I say at 90 degrees. Now, how much of an angle would the tug have to turn in order to create a strain of 43.4 tons, sufficient, as you say, to break the shackle?

A. 90 degrees.

Q. Then 90 degrees, you say, would create a strain of 114 tons?

A. Yes, sir, at that rate.

Q. Now, at what angle would it be necessary for the tug to go to create a strain of 43.4 tons? You said 90 degrees would create a strain of 114 tons. Now, how many degrees will create a strain of 43.4 tons?

A. That would be governed entirely by various elements relating to the velocity.

Q. Same velocity—I have said under the same conditions—same velocity, same hawser.

A. Then that could be figured.

Q. Will you do it?

A. I cannot do it now; it takes tables and instruments that I haven't here.

Q. So you cannot tell the Court, is that right?

A. Yes, not without the necessary things.

Q. Do you know what strain would be created on the towing gear, under the same conditions now that Mr. Gorham has given to you and that you took into consideration in determining the 114 ton strain, by the tug turning at an angle of 2 points—do you know how many degrees in a point?

A. 11½.

Q. Yes, well—

A. That could be figured.

Q. Do you know, I said?

A. I haven't figured it.

Q. Can you inform the Court?

A. No—under the same conditions that I answered your first question.

Q. And you haven't the necessary data here to enable you to figure that out?

A. Unless you would furnish me with all the elements in the case.

Q. I have given the same elements that you took into consideration in determining the 114 ton strain.

A. And I would need, as I said, the instruments and tables necessary to figure it out.

Q. And you haven't got them here?

A. No, sir.

Q. And cannot get them?

A. I suppose I might be able to get them in town.

Q. So you are not able, at this time at least, to give any information on that point?

A. No.

Q. Now, in your calculation at which you arrived at the 114 ton strain, you assumed that the barge was at rest, or stationary, did you not?

A. Yes.

Q. And that it wasn't in motion following the tug?

A. That was a negligible quantity at a right angle load.

Q. That is upon your theory that it was a negligible quantity at a right angle turn?

A. Not my theory.

Q. Whose theory is it?

A. An established principle of physics.

Q. But it is upon the assumption that the barge was stationary, isn't it?

A. No, it is immaterial in that case.

Q. So you figure that it does not make any difference whether the barge is in motion or whether it is stationary—it is just the same?

A. At that right angle pull.

Q. Now, in reference to that one-third factor of safety, I didn't quite understand that. Explain that again, will you?

A. That is a factor of safety that is used by engineers in design to safe-guard.

Q. Then, what would be a safe load to apply to this shackle, assuming that its tensile strength is 43.4 tons?

A. One-third of that.

Q. Now, in determining this 114 ton strain, did you take into consideration the fact that the tug had a towing machine upon it designed to, and which would, prevent sudden jars or jerks, and which was designed to, and would, equalize the strain and make it uniform?

A. No, I figured that the connection was a rigid one.

Q. Was a rigid connection to the tug. Now, if the tow line was attached to a towing machine on the tug which would let out the tow line when there was a strain applied from the barge, would let it out gradually and would take it in gradually when there was a slack in the tow line,—you haven't taken that into consideration?

A. No.

Q. Would that make any difference in your calculations, if those were the conditions?

A. It would have a compensating tendency.

Q. You don't know what that compensating tendency would be?

A. No, sir.

Q. Have no way of knowing?

A. No, sir.

Q. In figuring that 114 ton strain, did you take into consideration the horsepower of the engines of the tug?

A. No, sir.

Q. Why?

A. The force generated through a certain mass at a certain speed for a certain length of time.

Q. So it would make no difference whether the tug had been going 5 miles an hour, or whether it had been going 150 miles an hour, in your calculations?

A. Oh, yes, you misunderstood my explanation. The factors that enter into that calculation are mass, velocity and time.

Q. (By Mr. Gorham): Velocity of the mass, you mean?

A. Velocity of the mass.

Q. (By Mr. Stratton): And you did not take into consideration, then, the fact that the engines of the tug were in motion at the time, and gave to the barge a momentum in addition to the momemtum it had by reason of the engines having prior thereto been in motion and given it that velocity?

A. It would have been merely following—that basis of five miles an hour is the rate that was accorded to it.

Q. And the fact that the engines were in motion and propelling the boat would not necessarily be a factor to enter into your calculation?

A. No, the momentum of impact—

Q. Would absorb the propelling force of the engines?

A. Yes.

Q. In your calculation of the 114 ton strain, did you take into consideration any turning of the barge at all?

A. No, that was on the basis of a 90 degree impact.

Q. That the barge remained stationary and the tug made a 90 degree turn suddenly and created that impact equal to 114 tons?

A. On the basis that the impact was made at the rate of 7.3 feet a second, or 5 miles an hour.

Q. Did you take into consideration any turning of the barge, either at a right angle or otherwise?

A. Only the angle of impact.

Q. And that would be 90 degrees?

A. 90 degrees.

MR. STRATTON: That is all.

RE-DIRECT EXAMINATION

BY MR. GORHAM:

Q. The velocity of the mass, which is one of the factors necessary in your calculations, you do not have to take into consideration the motive power that produces that velocity, do you?

A. No, sir.

Q. And if there was a compensating tendency in the automatic towing machine to decrease the impact of 114.48 tons, is it evident that that compensating tendency did not absorb enough of the 114.48 tons to reduce the impact below the breaking load of the shackle?

MR. STRATTON: I object to that—the witness said he didn't know anything about the towing machine.

MR. GORHAM: No, he said there would be a compensating tendency in the towing machine. You took it up with him. Now, I am asking him if the impact was 114 tons, and there was some compensating tendency in the towing machine, whether, from his examination of the shackle, that compensating tendency reduced the impact below the breaking load of the shackle.

MR. STRATTON: The same objection, your Honor.

THE COURT: I did not quite catch the purport and condition of this witness' testimony. He is introduced as an expert. Certain questions are put to him and he is asked his opinion on them. He is given certain data upon which to work, and he gives his opinion without any reference, as I understand it, to this particular case—there is no evidence that he knows anything about that. There is no evidence that he knows how much compensation there was, or anything, except simply that he assumes as a fact the conditions that you gave him to work on.

MR. GORHAM: Certain given conditions.

THE COURT: Very well; now, you are asking him whether or not the compensation would have absorbed the impact.

MR. GORHAM: Counsel for the claimant asked him about the compensating tendency—that is another condition he is injecting into the conditions I put to the witness, and I have a right on re-direct examination to ask him about that.

THE COURT: You are asking him whether it did in this particular case? Of course if there was enough compensa-

tion to prevent the break, the break would not have occurred.

MR. GORHAM: I have a right to ask him if there is evidence from the condition of this shackle of a compensating tendency sufficient to reduce that load of 114 tons below the breaking load of the shackle,—if there is any evidence in this piece of iron here.

THE COURT: Below the breaking load of the shackle?

MR. GORHAM: Below 43.4 tons.

THE COURT: Objection overruled.

MR. STRATTON: Exception.

A. No, because if it had the shackle would not have broken.

Q. Now, you say that you figured the impact without taking into consideration the velocity of the barge?

A. Yes, sir.

Q. At the right angle position?

A. Yes, sir.

Q. That would not be an element at a right angle, would it?

A. No, sir.

Q. Would that be an element at an angle of 22 degrees?

A. Yes, sir.

Q. And you have not been given the velocity of the barge on the 22 degree turn?

A. No, sir.

MR. GORHAM: The two point turn.

MR. STRATTON: The same velocity—I stated the same conditions that Mr. Gorham did—if the barge was following the tug at 5 miles an hour.

Q. (By Mr. Gorham): You say the length of the hawser is not an element in your calculations, on your cross examination, but you say the dead weight of the hawser is an element?

A. Yes.

Q. Did you figure that in your calculations?

A. I did not figure that.

Q. What would be the weight of a hawser 180 fathoms long, 1¼ inch steel hawser,—approximately, I mean?

A. Oh, I should say approximately 3 or 4 tons.

Q. Would that have any appreciable effect upon the impact?

A. No, it would not; that was merely a dead weight that was already existing before the impact.

Q. Now, you say that you took into consideration as an element a rigid condition of the tow line at the time of the impact, and in the towing device?

A. Yes, sir.

Q. At the moment of impact?

A. Yes, sir.

Q. That the hawser was rigid with the tug?

A. Yes, sir.

Q. If the departure from the former course was in excess of 90 degrees would the impact be greater or less than you figured? You figured on a basis of 90 degrees—if it was in excess of 90 degrees would the impact be greater or less than the 114 and a fraction tons?

A. With the barge stationary?

Q. With the barge stationary.

A. No, it would not be greater.

Q. It would not be greater?

A. No.

Q. And with the barge moving, would it be greater?

A. If the barge were moving forward in a direction away from it, it would be greater.

MR. STRATTON: That is entirely immaterial, your Honor, because there is no claim that the tug was moving or made a change at a greater angle than 90 degrees.

MR. GORHAM: You are mistaken, because the evidence is that the helm was put hard over and kept hard over for some minutes.

THE COURT: Objection overruled.

MR. STRATTON: Exception.

Q. Where both objects were moving together in the same direction could you determine, by proper instruments, the impact necessary to part that shackle?

A. Yes, sir.

Q. What are those instruments?

A. In addition to instruments there would be tables, and instruments such as a dynamometer, compass and various drafting instruments.

Q. What is a dynamometer?

A. A dynamometer is a mechanism which shows loads imposed upon it or anything of which it forms a unit in the link or succession of links.

Q. And if you had a dynamometer attached to these two moving objects it would determine the load at any angle?

A. At all times, at any angle.
Q. And at any velocity?
A. Yes, sir.
Q. I will ask you if these two pieces of the shackle which are marked on the plan figures 5 and 6, and which you say you subjected to a tensile test, were in their present condition before putting into the machine for testing, so far as length is concerned?
A. No.
Q. What was the elongation under that test?
A. 50 per cent.
Q. So that the section has been elongated 50 per cent of its former length?
A. No, not its former length; 50 per cent of the gauge length.
Q. What is the gauge length?
A. The gauge length is the length between the gauge-marks, that is under the tension.
Q. That would be the shaft here? (indicating).
A. Yes, sir.
Q. In between the threads?
A. Yes, sir.
Q. Now, given the towing device that was explained to you this morning, and a 1¼ inch steel hawser, this shackle, and a 1½ inch iron re-enforced chain, and an impact of 114.48 tons, what would give way first?

MR. STRATTON: There is no evidence that there was an impact of 114.48 tons—absolutely none.

MR. GORHAM: That is the hypothetical question as put this morning.

THE COURT: I think that is within the evidence, Mr. Stratton.

MR. STRATTON: Allow us an exception.

Q. You may answer the question.
A. The weakest member of that link—of that chain—the weakest part would break.
Q. The weakest part of what?
A. The weakest connection in that towing device that you mentioned.
Q. Have you the Roeblings list?
A. Yes, sir.
MR. GORHAM: I will ask counsel if he has the Roebling list?
CAPTAIN BJERRE: No, I haven't it now.

MR. GORHAM: I wish you would get it.

CAPTAIN BJERRE: It doesn't belong to me.

Q. (By Mr. Gorham): Do you know Roeblings & Sons Company?

A. Yes, sir.

Q. What are they?

A. They are wire rope manufacturers.

Q. What reputation do they bear?

MR. GORHAM: You will admit they are standard wire rope men?

MR. STRATTON: Oh, yes.

Q. Have you got in the Roebling list in your hand there anything to show the tensile strength of 1¼ steel hawser?

A. Yes, sir.

Q. Will you disclose what it is?

A. They have lists in here of various steel ropes and hawsers.

Q. Have they any 1¼ inch hawser?

A. 1¼ inch standard hawser?

Q. Yes.

A. Yes—1¼.

MR. STRATTON: Is it the same as ours, 6 strands and 19 wires to the strand? It is immaterial what the tensile strength of other rope is. Let us get the rope that was on this tug—that is the only thing we should get in evidence.

THE COURT: Yes, I think that is true; it is immaterial unless it is this kind of rope.

Q. (By Mr. Gorham): Is there any 1¼ steel hawser of 6-19 in the Roebling list and made of flexible steel?

A. No such hawser listed.

Q. What is the hawser listed?

MR. STRATTON: We object to that as being immaterial; he says it is not our hawser and it is immaterial what other hawser it is.

MR. GORHAM: It doesn't appear what the make of that hawser was.

MR. STRATTON: We told him it was flexible steel.

THE COURT: Is there any difference?

THE WITNESS: Yes, sir

THE COURT: What is the difference—flexible steel, and what do you call the other kind?

A. The standard steel hawsers are composed of a number of strands of a certain number of wires with a hemp core—that is, standard towing hawsers. Naturally transmission ropes are not hawsers and are built up differently. Steel wires vary. In some they have hemp in each individual strand, as well as a hemp center—and the construction of these different hawsers varies, according to the purpose they are to be used for. The standard hawser for towing has a hemp core, only they are all classed as flexible steel hawsers.

THE COURT: All classed as flexible steel hawsers?

A. Yes, sir.

THE COURT: Very well; if they are all classed as flexible steel hawsers I do not see why he cannot answer the question.

MR. STRATTON: He says the book does not contain any information concerning 6 strand hawser, 19 wires to the strand.

THE COURT: Mr. Gorham asked him the question,—you drew his attention to flexible steel hawser, and if they are all classed as flexible steel he can answer the question.

MR. STRATTON: With six strands of 19 wires in a strand,—that must be taken into consideration.

THE COURT: I understood Mr. Gorham to take that into consideration in his question.

Q. (By Mr. Gorham): What is the hawser listed next to that?

MR. STRATTON: I object to that.

MR. GORHAM: Gives a list of the hawsers.

MR. STRATTON: I object to that, what list of hawsers Roeblings publish. If they publish ours, very well, but anything else is immaterial.

MR. GORHAM: It is not in evidence in this case yet that this hawser was a hawser of 6-19—that is the claimant's statement.

MR. STRATTON: Then it is up to the libellant to prove what kind of hawser we had.

THE COURT: Don't you think that is a matter that should come from the claimant, the size of the hawser?

MR. GORHAM: We will pass it. The witness has testified that the weakest unit in the device would break first and we have established the breaking load of the shackle. I guess we will let it go at that. That is all.

RE-CROSS EXAMINATION

BY MR. STRATTON:

Q. You etched only one side of the shackle, didn't you? You etched only the end of Exhibit D-2, didn't you?

A. That end and this end.

Q. That is to say, you etched the end of Libellant's Exhibits D-2 and D-3?

A. That is right, sir.

Q. Why did you not etch also Libellant's Exhibit D-7 and D-4?

A. I didn't consider that necessary to determine the quality of the material.

Q. With a towing device which could, and did, at all times equalize the strain so that when there was a greater strain on the barge the towing machine would pay out the line, and when there was a less strain by reason of the barge easing up on the hawser it would take in the slack in the tow line,—

MR. GORHAM: You mean, given a device of that kind?

MR. STRATTON: Yes, given a device of that kind, could there have been any sudden strain?

A. That would depend on the rate at which the compensation was adopted, taken in conjunction with the rate at which the mass was traveling.

Q. So not knowing anything about that towing machine you cannot say whether there was any sudden application of force to create the strain or not?

A. Yes, sir, I can.

Q. How can you know that?

A. From the fact that the fractured end is crystallized.

Q. And you base it entirely upon the fact that you found crystallized ends?

A. Yes, sir.

Q. And that crystallization could occur only through a sudden strain?

A. Sudden impact; yes, sir.

Q. So you conclude from that the towing machine did not prevent a sudden strain?

A. Evidently.

Q. In determining this 114 ton load, did you take into consideration the fact that the hawser might have bent con-

siderably and dropped down into the water and that it was necessary for the tug to take up that slack to make the hawser taut?

A. That would not effect the load on it.

Q. It would not. Did you ever have any experience in towing?

A. No, sir.

Q. You don't know then what course this barge Bangor would take if it were following the tug at the rate of 5 miles an hour, or thereabouts, under the conditions that Mr. Gorham has given to you, and if the tug's helm were put hard aport so that she would take a course of 90 degrees or more from the course which the tug had been previously pursuing?

A. I do not understand that.

Q. (Preceding question read to the witness.)

A. Not what course she would take, no.

MR. STRATTON: That is all.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

J. L. AVIS, Jr. A witness on behalf of the libellant, upon being recalled, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. I don't know whether I asked you, Mr. Avis, as to the condition of the fractured end of the specimens Exhibits D-5 and D-6, as regards crystallization. State whether or not you examined the fractured end of that specimen, and put it under a tensile test for crystalline evidence?

A. There is no evidence of crystallization. The fracture is fibrous.

Q. What does it show?

A. Why, there is no evidence of crystallization here, the fracture being fibrous.

Q. If, when the impact at right angles under the conditions given to you,—when the impact came there was a towing machine or device whose function was to take up the slack and pay it out so that there might be an even strain upon the hawser, would this right angle impact have caused the shackle to reduce in area at the point of fracture and at

the same time elongate the shackle, as the section which you put under the tensile test disclosed, when it was put under a gradual strain? In other words, if the shackle was subjected to a gradual strain, as the section tested was subjected to a gradual strain, would the right angle impact have had the effect of elongating the shackle and reducing the area of the shackle at any point?

A. If the towing device were compensating—

Q. You mean the towing device on the tug?

A. Yes, sir; if it were compensating and the load were gradually brought on the line with sufficient strength to have broken the shackle, the shackle would have broken in identically the same way as the test speciment broke—it would show an elongation, and it would show a reduction of area, and it would show a fibrous fracture.

Q. And in the exhibit shown to you neither of those conditions was shown—neither the elongation nor the fibrous fracture?

A. Neither one.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. How do you know the shackle was not elongated? You only had a part of it.

A. From the physical appearance of it.

Q. From the physical appearance of the part you had?

A. The fractured ends.

Q. You thought there had been no elongation?

A. I measured also the area, of course.

Q. You could not measure the area of the entire shackle because you had only a part of it?

A. Well, if there had been any reduction it would have been at the point of fracture.

Q. Do you know how wide this shackle was at the belly on each side?

A. I don't remember just the width.

Q. And you don't know whether the piece that was missing was elongated?

A. It could not have been elongated.

Q. Why?

A. Because the stress upon it was such that it broke with a crystallized fracture, which would not produce elongation.

Q. In other words, you say it was not elongated because you say it was a sudden application of force that broke the

shackle, and you judge that because there was crystallization at both ends of the pieces that you got?

A. Yes.

MR. STRATTON: That is all.

RE-DIRECT EXAMINATION

BY MR. GORHAM:

Q. I understand you to say—

MR. STRATTON: I object to counsel telling his own witness what he understands him to say.

THE COURT: Yes, just ask him the question.

Q. If there had been an elongation of the shackle under the stress it would have shown at the fractured part, is that right?

MR. STRATTON: That is putting the answer right in the mouth of the witness.

THE COURT: That is what he did say.

THE WITNESS: Yes, sir.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

CAPTAIN THOMAS FOSTER, upon being recalled, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. Did you see the missing part of this shackle?
A. After it was broken?
Q. Yes, have you ever seen it at all anywhere?
A. No, sir.
Q. Do you know where it is?
A. It is down at Mary Island, somewhere, I think.
Q. You mean at the botton of the sea?
A. Yes, sir.

MR. GORHAM: We haven't got it. That is all.

(WITNESS EXCUSED.)

MR. GORHAM: We now offer the deposition of Captain Thomas Grant.

(Deposition of Captain Thomas Grant read in evidence.)

(Whereupon court adjourned until 10 o'clock the following morning.)

MORNING SESSION

NOVEMBER 9, 1917, 10 A. M.

MR. GORHAM: We desire at this time to read the deposition of Captain C. W. Sprague, taken in Seattle, Washington, on October 24, 1917, pursuant to stipulation of parties filed in the office of the Clerk of the Court.

(Deposition of C. W. Sprague read in evidence.)

A. W. MYLROIE: The libellant herein, upon being recalled as a witness in his own behalf, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. Mr. Mylroie, have you ever seen the missing part of the shackle which is in evidence here, since the wreck?

A. No, sir.

Q. Have you ever heard of it being in existence since that time?

A. No, sir.

Q. Is it available for any purpose?

A. No, sir.

Q. Have you ever seen this piece of paper before, Mr. Mylroie?

A. Yes, sir.

Q. When did you see it first?

A. The letter that was enclosed with the towing agreement.

Q. Did you first see it in the mail?

A. In the mail.

Q. And in due course did you receive it, on or about this date?

A. I think I received it the 15th.

Q. The 15th of March, 1917?

A. Yes, the 15th of March, 1917.

Q. And you received the memorandum agreement, which has been put in evidence here, as an enclosure?

A. As an enclosure.

MR. GORHAM: We offer this in evidence.

MR. STRATTON: We think it is immaterial. It is

something that preceded the signing of the contract, and it is irrelevant and immaterial.

Q. Was that contract at that time signed by them?

A. Yes, both copies.

Q. That is, the contracts that were enclosed in this letter of March 14th, 1917, were executed by the Mills Company?

A. were executed by the Mills Company.

MR. GORHAM: Now, we have a right to show what they understood as to the contract, so far as this letter explains it.

THE COURT: I do not see how that letter explains it, but if the only objection is that it is immaterial, I will admit it.

MR. STRATTON: It is something which took place prior to the signing of the contract.

THE COURT: If it is immaterial it cannot hurt you.

MR. STRATTON: It is immaterial, irrelevant and incompetent, and does not show anything concerning this case, —does not show any construction of the contract.

THE COURT: It will be admitted. I cannot see the materiality of it myself just at present, but it may be material.

(Whereupon said letter was received in evidence and marked Libellant's Exhibit F.)

Q. I will ask you where the negotiations of this contract were entered into?

MR. STRATTON: I object to that. The contract speaks for itself.

THE COURT: The objection is overruled. I imagine it is simply preliminary.

MR. GORHAM: That is all.

A. In Seattle, at the Seattle Hotel.

Q. Between whom?

A. Between Captain Bjerre and myself.

MR. STRATTON: That is absolutely irrelevant and immaterial.

Q. Did you have any negotiations in regard to this contract other than in Seattle?

MR. STRATTON: We object to that as incompetent, irrelevant and immaterial. The contract speaks for itself, and all prior negotiations are merged in the contract.

MR. GORHAM: We are not trying to prove the elements of the prior negotiations—we are trying to prove in what place the negotiations took place, because the record so far shows that they submitted a signed contract to us in Seattle.

THE COURT: The objection is overruled, so far as the place is concerned, but the nature of the negotiations—

MR. GORHAM: I am not asking about that, if the Court please.

THE COURT: Would be merged in the contract.

MR. STRATTON: We renew our objection; and we object also because it already appears where the contract was delivered.

THE COURT: The legal question involved is one that can be determined when I pass on the case.

MR. STRATTON: I would like the record to show our objection, but I am not insisting on it.

THE WITNESS: (Answering the question): No, sir.

Q. When you heard of the wreck of the Bangor in March, 1917, what did you do personally?

A. I took the earliest boat I could get to go to the wreck.

Q. On a steamer?

A. On a steamer—a passenger boat.

Q. When did you reach Ketchikan?

A. About midnight the 31st of March.

Q. And when did you get to the wreck from Ketchikan?

A. The following morning about 11 A. M. I left Ketchikan.

Q. How long did you remain at the wreck,—when did you return to Ketchikan?

A. I think I stayed there about three hours, and came back to get more men and equipment to save the cargo.

Q. What did you find when you first visited the wreck —where was the barge?

A. The vessel at that time was almost high and dry, it being low tide,—I think I got down there between four and five o'clock.

Q. On the inside of this little island?

A. On the inside of a reef; on the inside of another little island.

Q. Was she on the shore of Mary Island or on the shore of the little island?

A. She was on the shore of a reef, near the little island.

Q. I show you a photograph—

A. Yes, I recognize that.

Q. Is that a fair representation of that barge as she laid there at that time?

A. Yes, a photograph of it.

MR. GORHAM: I offer this in evidence.

MR. STRATTON: No objection.

(Whereupon said photograph was received in evidence and marked Libellant's Exhibit G.)

Q. Did you make a survey of the vessel at that time to ascertain what her damage was?

A. I think not; she was full of water and my first efforts were to get the cargo off.

Q. Had any cargo at that time been dumped?

A. Not at that time.

Q. Now, what cargo was dumped, if you remember?

A. In the first place, before we could dump any cargo we had to take off her whole deck-load, amounting to between three and four hundred thousand feet of lumber; we put that on rafts and towed it to Ketchikan. All of the cargo was in the hold of the ship, and we had to move the lumber out of the hatches, which were filled with lumber, in order to get in to where the general cargo was stowed; and we threw overboard all the hay and grain.

Q. Why did you throw it over?

A. It was absolutely worthless—ruined; we threw all the plaster, cement, panelling—two different kinds of panelling—veneer panelling—hardwood panelling and fir panelling—and lime, and I don't just remember now what other stuff, but anything that was totally damaged we threw overboard.

Q. And these operations were going on under your instructions and supervision, were they?

A. Yes, sir.

Q. Was there any of the cargo of the barge on this voyage disposed of, otherwise than dumping?

A. All that I thought there was any value in at all I saved or hauled to Ketchikan on scows and rafts.

Q. All of it?

A. All that was of any value.

Q. Was there any of it disposed of in Ketchikan?

A. Yes, sir.

Q. Then you did not haul that to Anchorage?

A. I hauled it to Ketchikan, I said.

Q. What, if any, of that cargo was disposed of at Ketchikan?

A. The groceries and supplies that I was carrying for another party, he ordered me to dispose of them if they were damaged in any way, at Ketchikan and get what I could out of them. Mr. Frederick, who had them insured, asked me to do the same, and those were sold at Ketchikan.

Q. In disposing of these damaged goods—you say that they were damaged?

A. They were damaged, yes.

Q. In disposing of such damaged goods as were disposed of in Ketchikan, what effort was made to get as high a price as possible for them?

A. All of the groceries except the potatoes I put in a warehouse here, Strong's warehouse, and I turned them over to Mr. Beegle's company and asked them to sell them at the best available price they could get; and I think he went out and got bids on them and accepted the highest bid. The potatoes were sold at the wreck to one of the gas boat men.

Q. Then after dumping the cargo and rafting the lumber, what was done with reference to relieving the vessel from her then condition and position?

A. The tides had been neaping every day and it was almost high and dry at that time during the low tide, and we got down under the bilge of the ship and found the planking that had been broken loose from her side, and we cut off the planks and filled the hole with gunny sacks, and we took a hatch cover and put over it, and put canvas over the hold, and that day at high tide we pulled her off and brought her to Ketchikan.

Q. And what did you do with her at Ketchikan?

A. We beached her here on the sand beach, right at the ball park, and put on temporary repairs, such as we thought would enable her to continue her voyage.

Q. What was the nature of those repairs?

A. They were taking off the hatch covers, nailing on and inserting short planking where it was broken, caulking the joints where they opened the skin, and did a little work on her forefoot and keel.

Q. What was the condition of her keel when she came in here?

A. It was cut in three places right into the garboard strakes and the shoe was entirely off at her forefoot.

Q. How long was she at Mary Island?

A. She was at Mary Island, on the beach 10 days.

Q. And then she was taken to Ketchikan—how long was she in Ketchikan?

A. Undergoing repairs, 4 days.

Q. And then she was taken off the beach—

A. She was taken off the beach and the cargo that we had on rafts and on scows and in the warehouse restowed.

Q. And when you restowed her cargo, was that to make ready for continuing the voyage to Anchorage?

A. Yes.

Q. After she was taken off the beach at Ketchikan then she was reloaded?

A. Then reloaded.

Q. And she was on the beach 4 days?

A. She was on the beach 4 days—I don't know whether it was four full days—it might have been 4 days and a little more or 4 days and a little less.

Q. How long was she at Ketchikan after being taken off the beach at Ketchikan?

A. She was—I think it took us 3 or 4 days to load the cargo back in her and get her ready. When we got her all loaded we found she was in a very bad, leaky condition and the steam pump aboard of her would not control the water that leaked into her.

Q. You already had a steam pump installed?

A. That was always aboard of her.

Q. And that would not take care of the water?

A. It was not sufficient under her load.

Q. Then what did you do?

A. We installed a gas pump. I went down town here and rented a three-inch centrifugal pump from the New England Fish Company and tried to hook it up with a diamo engine, but after we got it connected up we found we couldn't get steam enough to run the two pumps and we had to discontinue that; and then I got a gas engine so they could work together.

Q. Did that keep the water down?

A. Yes

Q. How long did all that take after she came off the beach?

A. 12 days all told; we left here at 4 o'clock on the 16th of April.

Q. You mean 10 days on the island?

A. Yes.

Q. And 4 days on the beach at Ketchikan?
A. Yes.
Q. And how many days after that?
A. Between three and four days reloading; then after we had her all reloaded the fight came of keeping the water out, and she almost sunk with us at that time, and it took us some four or five days more to get that fixed up.
Q. So you really had a detention in your voyage of 22 days?
A. 22 days, exactly.
Q. Do you know what your salvage operations cost?
A. I have a complete report of every dollar spent there.
Q. How did you pay your bills for your expenses of those salvage operations?
A. I deposited a check in the Miners and Merchants Bank here, and wrote checks upon the account at that bank.
Q. I show you a paper which purports to be a statement of the Miners and Merchants Bank, Ketchikan, Alaska, A. W. Mylroie, April 25, 1917, and ask you what that is?
A. This is a statement from the bank.
Q. And these are the returned vouchers accompanying that statement?
A. Yes, sir.
Q. Of checks signed by yourself?
A. Yes, sir.
Q. On your bank account?
A. Yes, sir.
Q. I will ask you if the figures and words in the date column, the figures of the amounts and balances, and the figures in the column immediately to the left of the amount column, all in blue ink, were on that statement when you got it from the bank?
A. Yes, sir.
Q. And the green writing has been put on since then by you?
A. Yes, sir.
Q. And this pencil memorandum on the right hand side has been put on since, by you?
A. Yes, sir.
Q. That pencil memorandum on that statement shows what?
A. Shows the salvage operations, and the money that was expended through the Ketchikan bank through the salvage operations.
Q. That is correct, is it?

A. Yes, sir.

Q. $2882.81—that is so far as the Ketchikan bank is concerned?

A. Yes.

THE COURT: What is that?

MR. GORHAM: This is the salvage expense for salving the vessel at Mary Island and Ketchikan.

THE COURT: Labor, material—

MR. GORHAM: Labor, material and scows.

Q. I will ask you if the returned vouchers, your checks on the bank, severally represent the amounts paid by you to the payees of the checks for the salvage operations?

A. Yes, sir, they do.

Q. And those amounts were severally the reasonable value of the services performed, for labor and for supplies, materials, launches, etc.?

A. Yes, sir.

MR. GORHAM: I offer the bank statement in evidence as an exhibit.

(There being no objection, said statement was received in evidence and marked Libellant's Exhibit H.)

MR. GORHAM: Now we offer 67 numbered vouchers, and ask to have them marked H-1, H-2, H-3, etc., so that they may be properly identified hereafter.

THE COURT: If there is no dispute about those vouchers they might as well be put in as one exhibit.

MR. GORHAM: Very well.

THE COURT: I understand the bank's statement is practically a list of those checks.

MR. GORHAM: Yes, showing the deposit and the list of the checks, showing a balance of $13.19 on hand.

THE COURT: Is there any dispute about that?

MR. STRATTON: Not that we know of.

THE COURT: Very well; just fasten them together and mark it as one exhibit.

(Whereupon said checks were marked Libellant's Exhibit I, and received in evidence.)

Q. You have marked here on this exhibit H, in green ink, beside the several amounts, in a large number of cases

the word "labor," in another instance the word "cable," and some of the spaces beside the amount are marked with the letter "R," what does that indicate?

A. That means that I have a receipt for that expenditure.

Q. In addition to the check?

A. I took receipts for everything except the labor, that is, and a few small items.

Q. Now, I will ask you to look over those and see if those are all bills disbursed out of the Ketchikan Bank for the salvage operations at Mary Island and Ketchikan?

A. Yes, sir.

Q. In the bank statement the total amount of the checks foots up $2924, and you show a net list of vouchers $2910.81—that is after deducting the balance of $13.19 remaining in the bank?

A. Yes.

Q. $13.19 from $2924 would leave $2910.81.

A. The net vouchers amount to $2910.81.

Q. And those vouchers include, do they, an amount of $28.00 which was an expenditure for something other than the salvage operations?

A. The $28.00 is the only item that should not be charged to the salvage operation.

Q. What does that "less $28.00" mean?

A. That is some men that quit here.

Q. Members of the crew of the barge?

A. Yes.

Q. And that check includes the time that they were here as well as coming up on the voyage?

A. I gave them a check on the Ketchikan Bank.

Q. So you are deducting their time prior to the wreck?

A. Yes; that should not be charged to the wreck.

Q. Did you use a centrifugal pump?

A. Yes, I bought a pump here in Ketchikan.

Q. What did it cost you?

A. $75.00.

Q. And how much of that do you charge to salvage expense?

A. 50 per cent of that, or $37.50.

Q. That was the reasonable value of the pump?

A. I think so—we were very glad to get it at that.

Q. And that was a reasonable percentage to charge to the salvage operations?

A. I think it is.

Q. Are you willing to give them the pump for $37.50?

A. Certainly.

Q. Bill of Heckman, $180.68, what was that for generally?

A. That was for supplies for the men while at the wreck.

Q. And Revilla Hotel, $19.50?

A. That is for room rent for myself.

Q. Northern Machine Shop, $233?

A. That is for installing the gas engine and the centrifugal pump aboard the ship.

Q. Is that a reasonable value for those services?

A. Yes, what I had to pay.

Q. Was it the reasonable value of the services in Ketchikan?

A. I think so.

Q. A miscellaneous entry, $163.50,—you have receipts for that?

A. No, I haven't receipts for that.

Q. You have it marked R.

A. That is money I took with me from Seattle to the wreck in small bills, and when men would work two or three hours and quit I would give them the money out of my pocket.

Q. Alaska Steamship, transportation, $50.00?

A. That is my fare up and back.

Q. Any receipt for that?

A. No receipt.

Q. Up from where?

A. From Seattle to Ketchikan and return.

A. Gas engine, $40?

A. That is rent for the engine to work the centrifugal pump.

Q. Piles, $50?

A. Piles taken to the vessel at Mary Island to make our rafts over there.

Q. You paid $50.00 for them through Mr. Beegle?

A. Yes.

Q. Was that the reasonable value of them?

A. Yes.

Q. Cables from Seattle, $15.70?

A. That is money expended in sending cables.

Q. In connection with this salvage operation?

A. Yes.

Q. Making a total, outside of the bank checks, of $789.88, added to the bank statement of $2882.81, makes a further total of $3672.69.

A. That is correct.

Q. Now, we have here in pencil, "Tug Commodore, 4 days at $115, $460"—what is that for?

A. At the time the Commodore was standing by there Captain Bjerre was insisting that I pay him something, and I kept insisting that Mr. Hendry had told me over the phone—

MR. STRATTON: We object to what Mr. Hendry said over the phone.

THE COURT: I do not think it is strictly hearsay, but I do not think it is material what he kept insisting on. What did he do?

Q. Did you pay him?

A. I did not.

Q. But Captain Bjerre insisted that he would charge you—

A. He wanted me to agree to the charge, which I never did.

Q. Did you send a telegram to the tug's owners offering to pay any sum for the time actually occupied in salvage operations by the tug?

A. I did; I forwarded a telegram something to the effect that we would only pay for the actual days the tug was doing salvage work there.

Q. What is that paper? (showing paper to witness).

A. This is a copy of a cable I sent to B. C. Mills Tug & Barge Company.

Q. When?

A. On April 9th.

Q. A carbon copy?

A. No, just a pencil copy.

Q. The telegram reads as follows: "B. C. Mills Tug & Barge Company"—first, "Ketchikan, Alaska, April 9, 1917. Bjerre demands one hundred fifteen daily charge Commodore while here. Cannot agree. Will allow only for days actually assisting barge from beach. Ask that you leave this till my arrival at Vancouver. Instruct Bjerre accordingly. Barge ready proceed Thursday. A. W. Mylroie."

(Whereupon said telegram was marked Libellant's Exhibit J.)

Q. How many days was the tug assisting the barge?

A. I think three days. We had a gas boat bring her hawser in and give us a pull on the barge, with the expectation and hope that that might pull her from the rocks. Each of those pulls probably took her about an hour.

Q. Were they successful?

A. Unsuccessful—never moved.

Q. The barge still remained on the rocks?

A. High and dry. Then one day I sent her to Kasaan to get a large scow that was up there and bring it down to the wreck. After that scow was loaded I think the Commodore took her to Ketchikan for me—it was too big for the gas boat to handle; and then after the Bangor was really floated and brought out to her, she hooked on to it then and took her to Ketchikan—and that is all she done.

Q. That is the basis of the item charged in salvage operations, "Tug Commodore, 4 days at $115, $460."?

A. Yes, sir.

Q. Making a grand total for salvage operations of $4132.69?

A. I think that is correct.

Q. Now, you paid some bills at Ketchikan and Mary Island by Seattle check, did you not?

A. I think we went over those. Yes, I did. These are receipts that were paid by Seattle check.

Q. And I have enumerated those in those items following the items of the Ketchikan bank, is that right?

A. Yes, sir.

Q. They are part of the $789.88?

A. Yes.

MR. GORHAM: We offer the bills and receipts. We will go through each one and identify them if you want.

MR. STRATTON: Counsel waives that.

Q. (By Mr. Gorham): These are the actual bills rendered to you?

A. Actual bills, all of them.

Q. And you have paid them?

A. Paid in full.

Q. And the services and materials and supplies you received in these salvage operations?

A. I did.

Q. And the charge made in the bills is the reasonable value thereof?

A. Yes,

MR. GORHAM: We offer these in evidence.

(There being no objection to the offer, said bills and receipts were received in evidence and marked Libellant's Exhibit K.)

Q. Now, in reference to the value of the dumped car-

go, Mr. Mylroie, the item of $98.66, Ehrich Harrison Company, what is that?

A. That is some veneer panelling. This is the receipt for it.

Q. Was that dumped?

A. That was thrown overboard, yes—dumped.

Q. And the item, Ranning Lumber Company, $270.00?

A. That was plaster that was thrown overboard.

Q. And the item of Galbraith, Bacon and Company, $1670.18?

A. Hay, grain and lime.

Q. And the item of W. F. Jahn and Company, $88.40?

A. That was Timothy hay.

Q. Footing up $2185.24.

A. Yes.

Q. These are the original invoices for these goods, are they not?

A. They are.

Q. Of the dumped cargo?

A. Yes

Q. And they are the reasonable value of the goods?

A. Yes.

Q. And you paid these invoices?

A. I paid those invoices—full price.

MR. GORHAM: I offer these in evidence.

(There being no objection to the offer, said invoices were received in evidence and marked Libellant's Exhibit L.)

Q. O. B. Williams, $58.00—that belongs with them?

A. Yes, that belongs to that. That was panelling that was thrown overboard.

Q. Now, as to the dumped cargo, I show you an invoice of W. P. Fuller and Company, $384.43, and ask you what has become of the material on the invoice?

A. That material, I was about to throw overboard when I opened a crate of the doors, and I found although they were badly damaged they might be of some value, and I saved them,—put them on the raft and sent them up to Ketchikan, and loaded them on to the ship and took them up to Anchorage.

Q. Has there been a sale of those goods there?

A. I sold them, yes.

Q. For what price.

A. The price that is credited there; $305.20 is the credit they should receive.

Q. Leaving a balance of $79.23?

A. Yes, leaving a balance of $79.23.

Q. That is the item of loss on that invoice?

A. Yes.

Q. The Standard Oil Company, $36.40, what does that refer to?

A. I had a few cases of gasoline and oil on the Bangor, and in the salvage operations there were 13 cases lost. That is the value of those at $2.80 a case, which I paid the Standard Oil Company in Seattle.

Q. And the next item is Morningside Shingle Company, 50,000 shingles at $2.00, $100—what is that?

A. There was a shipment of 100,000 shingles aboard the ship, and the water getting in and wetting the bundles it broke the bundles loose, and when there was water in the ship they were floating all over the ship, and we didn't take the trouble to bunch them up again—we couldn't do it—didn't have the time, and we saved 50,000 out of the ship.

Q. It would have taken more time to have bunched them than the shingles were worth?

A. Oh, far more.

Q. And the $2.00 is—

A. That is what I paid for them in Seattle.

Q. And you are charging this $100.00 as being the part of the shingles lost?

A. Yes, sir.

Q. Then the next item, Patent Vulcanite Roofing Company, $1505, for which we have an invoice here?

A. Yes, sir.

Q. And also the Morning-side Shingle Company. But referring to the roofing company's invoice, $1505.00, that was the invoice price you paid for those goods?

A. That was the invoice price at the factory at San Francisco.

Q. You have a credit here of $642—what is that for?

A. That is money received back from the sale of the goods at Anchorage.

Q. Was that sale price the reasonable value of the goods in their then condition, when sold?

A. Yes.

Q. Were the goods damaged?

A. Oh, badly damaged; all of that shipment didn't go to Anchorage because there was considerable of it went overboard at the Island, but I have no knowledge now of how much.

Q. You have an item of $1825.00, E. E. Kurtz & Company and T. D. Corlew, inventory missing, S. F. credit. $1825—what does that mean?

A. That was the total of their invoices of the ship-

ment they put aboard my ship, and I believe that Mr. Frederick, the insurance man, told me he had those invoices in his office and would give them to me before I came up here, but when I went in to get them he couldn't find them in his records. We have sent to San Francisco, however, for them and they are in the mail now coming this way.

Q. That is the amount you paid for the invoice?

A. Yes, sir.

Q. What were the goods?

A. Those were supplies—general merchandise.

Q. You allow a credit of $568.75, J. R. Heckman—what does that mean?

A. That is what I stated was sold here to J. R. Heckman and Company, for that amount.

Q. Have you an account of the sale of that, from J. R. Heckman and Company?

A. I have yes; that has been turned in.

Q. Whereabouts?

A. You will find that in with the salvage operations.

Q. There is an item of credit of $568.75?

A. Yes, sir.

Q. That leaves a balance of $1256.25. You have a credit, Ketchikan Meat Company, spuds, $13.50—what is that?

A. Three sacks and a half of potatoes that were left on the ship that we found and when we got here to Ketchikan we sold them to him, or at least he gave me credit on the meat bill for it.

Q. That was the reasonable value of them?

A. Oh, yes, very.

Q. Credit item of $404, C. Lancaster?

A. I sold to Mr. Lancaster, of the Tug Taku, 202 sacks of potatoes at $2.00 a sack.

Q. Why did you sell them?

A. To get rid of them; they were water-soaked.

Q. To prevent further depreciation?

Q. Oh, yes.

Q. So that the item chargable for damaged cargo on the E. E. Kartz and Company—Corlew invoice is $838.75, net?

A. Yes, sir, net.

Q. Now, you have the next item, lumber, damage to stock, 187,000 feet finish, average damage $12.50, $2337.50—what does that mean?

A. There was 187,000 feet of finished lumber, surfaced, clean and dry stuff, on the ship, which had been water-

soaked—flooded every day all the time she was on Mary Island.

Q. What was the invoice price of that?

A. I don't know.

Q. Well, here is the invoice from the Stimson Mill Company.

A. That is the invoice. The price is shown there.

Q. 187,000 feet finished lumber, average—

A. $25.50 for most all the finished stuff, surfaced 4 sides, at Seattle.

Q. How did you arrive at the price you charge here?

A. That is the price I tried to sell it for on arrival in Anchorage, for good clean stuff.

Q. Were the 187,000 feet of that shipment damaged?

A. It was all damaged by being in the hold of the ship.

Q. Besides being owner of the barge Bangor, have you any business in Anchorage?

A. I am the owner of the Anchorage Supply Company, and the Bangor is only the means of getting my supplies up there.

Q. What kind of business is that?

A. Lumber yard.

Q. How long have you been occupied in that business there?

A. Since the spring of 1915.

Q. What is the average amount of stock carried in that yard—or what was it during 1916 and 1917?

A. That is a hard question to answer.

Q. What is the largest amount of stock you had on hand at any one time?

A. Probably a million feet, or a million and a half.

Q. You also have a merchandise store there?

A. No, just a warehouse—handling building supplies.

Q. Now, your next item is 200,000 feet of common, Anchorage sale $7.50 less per thousand, $1500.00?

A. The barge Bangor—I would like to go into it a little better. The barge Bangor, before I purchased her, had been used in the ore trade business, carrying concentrates, and the bilges of the ship had a lot of that concentrate still in her, and the water at Mary Island, while she was there, had completely covered the common lumber we had down in there, with this greenish stuff and made a very unsalable stock, and I put a price on it of $7.50, which is not the regular retail price in Anchorage, in order to move it.

Q. Did you dispose of it at that price?

A. We did.

Q. All of it?

A. We have some of it left.

Q. That you are selling at $7.50?

A. We are selling it at less than that now.

Q. Was that a reasonable deduction to be made by reason of the damage to that lumber?

A. I think we were very fortunate in getting that price for it.

Q. Is that a fair reduction?

A. Yes, very.

Q. Now, going back, the damage to the 187,000 feet of finish lumber, which was charged at $12.50, that item is $2337.50, and then the 200,000 feet of common, Anchorage sale $7.50 less per thousand, is $1500.

A. Yes, sir.

Q. Now, you have 20,000 feet total loss, $240.00—what is that?

A. It was lumber that was lost in salvage operations, broken up and destroyed.

Q. What was the necessity—

A. Well, some of it floated away from us—and others went overboard.

Q. Unavoidably, you mean?

A. Yes. $240.00 is just what I had to pay the mills to replace it.

Q. So your lumber loss on that cargo was $4077.50?

A. Yes, sir.

Q. And your total damaged cargo loss was $5994.88?

A. Yes.

Q. And the grand total of your loss by damaged and dumped cargo is $8080.12, is that right?

A. Yes, sir, that is correct.

Q. Look at that Heckman Company voucher there and see if that should not be in one of those other exhibits?

A. Yes, I thought this was in there.

Q. Where does that belong?

A. They were the successful bidders for the groceries and the potatoes.

MR. GORHAM: We offer those bids made for damaged cargo—there are two of them, one by C. B. Lancaster, and one by J. R. Heckman and Company, and they might go in under one exhibit.

(There being no objection to the offer, the said papers were received in evidence and marked Libellant's Exhibit M.)

Q. Now, this Heckman invoice—what is that—is that the credit that he gave you for what he purchased?

A. Yes, sir.

Q. That should go in—

A. In with the salvage vouchers, I think.

Q. That is Exhibit K. This Heckman invoice goes in with Exhibit K. Now, have these papers anything to do with the Kurtz-Corlew invoice?

A. Those are the shippers' receipts showing the cargo that was delivered from the Bell Street dock to the barge.

Q. Was any of that delivered over the Bell Street dock to your barge?

A. It was all delivered to the barge Bangor, yes.

Q. At Seattle?

A. At Seattle.

Q. On this voyage?

A. On this voyage.

Q. And this dumped cargo and damaged cargo you have been referring to and testifying to was part of the cargo of the Bangor on this voyage in question?

A. It was.

Q. In March, 1917?

A. It was.

MR. GORHAM: Now, if the Court please, we will be unable at this time, I think, to prove this Kurtz-Corlew,—

Q. (By Mr. Gorham): That is the one for which the invoice is missing?

THE WITNESS: Yes.

MR. GORHAM: We will ask permission from the court to identify and file, and offer in evidence, these railroad invoices, and if those Kurtz-Corlew invoices arrive before we close the case we will put those in. They are on their way from San Francisco, we believe. We requested that they come before we left Seattle.

(Whereupon, there being no objection to the offer, the said railroad invoices were received in evidence and marked Libellant's Exhibit N.)

Q. Now, the loss of freight earnings. Have you any statement to show what your loss of freight earnings is?

A. Yes, sir.

Q. Where is it?

A. I have a copy of the manifest.

Q. Where is that?

A. I have it here with me.

Q. And what freight were you charging against the shipments composing this cargo, which will form the basis of your freight earnings?

A. Taken from the tariff sheets of the Pacific Alaska Navigation Company.

MR. GORHAM: I show you the Pacific Steamship Company's tariff sheet, issued March 2, 1917, effective March 10, 1917, marked "P. S. S. Co. No. 79, All Water,"—I will offer the tariff sheet in evidence.

MR. STRATTON: No objection.

(Whereupon said tariff sheet was received in evidence and marked Libellant's Exhibit O.)

MR. STRATTON: At this time, in reference to that $460 item, charges for the services of the Commodore, I do not understand that the claimant has put in a bill for that—is that right, Mr. Gorham?

MR. GORHAM: We have not received a bill.

MR. STRATTON: That $460 item, then, is merely an admission on the part of the libellant that he owes the owners of the Commodore that sum of money.

MR. GORHAM: No, it is not an admission. We simply said it was up to you—if you consider that that telegram constitutes a new contract, then we will have to pay you that, and if we have to pay you that, then it is part of the charge we have a right to make against you in the salvage operations.

MR. STRATTON: That is what I want to have made clear. I will object to the introduction of the evidence concerning that $460. We do not wish to be estopped, or have it considered as an admission that the libellant in this case does not owe the Tug Company more than $460. That is a matter that is not involved in this case. It is a question of salvage services, and we do not want to mix that question up with the litigation in this case. I want that clearly understood, that that is not an estoppel, or an admission upon our part that they owe us that amount for our salvage services.

MR. GORHAM: We will ask counsel what his claim for salvage is at this time.

MR. STRATTON: I do not know anything about it,—I have no information. When I say I have no information, I am speaking for myself.

Q. (By Mr. Gorham): We are now on that part of the statement involving the loss of freight earnings, under the head of "Shipment." W. P. Fuller and Company, $205.80—what is that item?

A. That is the freight earnings that the barge would have earned had the shipment gone forward under average conditions.

Q. Is that the freight earnings on the entire shipment?

A. The freight earnings on the entire shipment.

Q. Was that all lost?

A. That all went forward.

Q. Went forward how?

A. In a damaged condition.

Q. On your vessel?

A. On the vessel, yes.

Q. I don't understand.

A. That was part of the damaged cargo that was sent up there, and we have given full credit of the amount of money that was received on that, and I take that out of the invoice price on our sale price up there. For instance, if a door costs a dollar in Seattle, and costs 50 cents to deliver it there, our cost is $1.50. If we sell that for $1.75 I credit the concern back with $1.75, but if I sell it for $1.25 I charge them 25 cents.

Q. Your freight earnings loss on the W. P. Fuller shipment, according to the tariff sheet introduced—

A. Was $205.80.

Q. Is that included in any other item you have already offered in evidence?

A. No, it is not.

Q. The W. F. Jahn Company cargo, $53.38?

A. That was a total loss.

Q. And the total loss of freight earnings on the Galbraith Bacon Company's shipment was $858.50?

A. Yes, that is right.

Q. Was that a total loss?

A. That was a total loss.

Q. Of cargo and total loss of freight earnings?

A. Total loss in both cases—thrown overboard at the Island.

Q. O. B. Williams Company, $19.11?

A. That was thrown overboard—a total loss.

Q. Total loss of freight earnings—Ehrlich Harrison Company, $14.23?

A. Total loss—overboard.

Q. Ranning Lumber Company, $331.00?

A. Total loss—overboard.

Q. Total loss of freight earnings?
A. Both.
Q. Roofing Company, advance charges $153.95, freight $401.50, total $555.45—what is that item?
A. That is the shipment of roofing paper and building paper. The portion that I saved was sent forward, and there is a credit allowed there on what was received in Anchorage.
Q. And this is the freight earning on the loss?
A. Yes, sir.
Q. Have you a memorandum of the advance charges there, $153.95?
A. I think I have there somewhere. There was $101 freight up from San Francisco to Seattle, and the other, $52 dollars and something for transfer charges.
Q. Is that it? (handing paper to witness.)
A. Yes, those are the advance charges—that is it.
Q. What are you reading from here?
A. The shipper's manifest.
Q. We will attach that shipper's manifest as part of the evidence.
A. We have one of the invoices here, or it should be here.
Q. Morningside Shingle Company, $112.50?
A. That is freight that was lost on 50,000 shingles that were lost.
Q. Standard Oil Company, $617.77 plus $111.23, which is added in below?
A. You have a receipt there somewhere for the amount of freight I paid for that shipment.
Q. Do you mean that?
A. No, that is the Standard Oil invoice.
Q. What is that $617.77 plus $111.23, Standard Oil?
A. Standard Oil shipment, and this is the quantity that went from here.
Q. You shipped them on the Pacific Steamship Company's line?
A. Yes, from here.
Q. And paid the freight?
A. Yes, paid the freight.
Q. What is the amount of the freight?
A. You have the receipt there.
Q. $617.77?
A. Yes, sir.
Q. And what is the $111.23?
A. That is the difference in the charges at Anchorage

between taking it from my ship on to the dock and having it lightered from a regular passenger ship on to the dock.

Q. In other words, the tariff rate is $617.77, and the additional expense incurred on this shipment, transferring it from the Pacific Steamship line to the dock at Anchorage was $111.23?

A. Yes.

MR. STRATTON: Is there any other charge for loss made on this account other than this amount?

THE WITNESS: Yes, for the 13 cases that were actually lost.

MR. STRATTON: But are you charging any loss to us for carriage between Seattle and Anchorage?

A. No, none at all. That charge there is 75 per cent of the Seattle tariff between Seattle and Anchorage.

MR. STRATTON: I just wanted to know whether that was a total charge, is all.

Q. (By Mr. Gorham): Now, the next item, total loss of 20,000 feet, $205, and $35 brought down in the footings —what is that?

A. That is at the rate of $10.50 a thousand which I allowed the ship for hauling.

Q. What is that?

A. 20,000 feet of lumber that was totally lost.

Q. And the next item?

MR. STRATTON: You are allowing how much?

THE WITNESS: $10.50 a thousand.

MR. STRATTON: That would be $210.00.

THE WITNESS: $205.00—that is the freight.

MR. GORHAM: What is the $35.00?

THE WITNESS: The $35 is an error on your part—you put it down $205 on the list when it should have been $240.00.

MR. GORHAM: That is what I say, it should have been $240—20,000 feet at what?

A. At $12 would be $240, but we are not discussing that now—we are discussing the freight losses, which is $205 on that item.

Q. (By Mr. Gorham): Then the $35 does not belong there?

A. No, it does not belong there at all.

Q. Then if it was added in the total footings it must come out again?

A. It must come out.

Q. (By Mr. Stratton): In reference to this $205 item, I think we will save time if we explain as we go along. That is 20,000 feet of lumber at $10.50 a thousand?

A. At $10.50 a thousand freight charges.

Q. (By Mr. Stratton): That is the charge you made for loss of freight?

A. Freight earnings.

MR. STRATTON: Freight earnings?

THE WITNESS: On that amount of lumber.

MR. STRATTON: On that amount of lumber, which was a total loss?

THE WITNESS: That is it.

MR. STRATTON: To whom did that lumber belong?

THE WITNESS: Belonged to myself—the Anchorage Supply Company.

MR. STRATTON: And you were charging yourself the freight on your own cargo?

THE WITNESS: Yes, sir, showing what the barge would do.

Q. (By Mr. Gorham): Now, the Kurtz and Corlew item of $368.29?

A. That would have been the earnings to the barge had the shipment gone forward.

Q. Under the tariff rates?

A. Yes, under the tariff rates.

Q. And you never did testify how much of that shipment did not go forward.

A. None of it went forward.

Q. So in the tabulated statement which includes the $35.00 added in to the column but which must be deducted again, we have a gross loss of freight earnings of $3452.26.

A. Yes, less $35—that is correct.

Q. $3452.26—that is the way it stands now—that is your total loss of freight earnings—is that right?

A. Yes, $3452.26.

Q. $3452.26—and that is figuring your freight earnings at tariff rates, according to the Pacific Steamship Company's tariff sheet offered in evidence?

A. That is what I paid. I will explain that statement if you will give me just a minute. As soon as I heard this

barge was on the rocks at Mary Island, before I left Seattle and before I could get a boat to come here, I duplicated everything that I had on that boat that I could buy and sent forward for fear this would never reach Anchorage, and knowing the company was out of everything, practically, I duplicated all the stuff I had aboard the Bangor and sent it up to them on passenger boats,—anyway I could get it there—I was unable to send that quantity of lumber—and those are the rates I had to pay to get that forward.

Q. Are they the tariff rates?

A. The tariff rates, as you will see by the tariff sheet.

Q. And that is the basis upon which you have figured your freight earnings loss—you have used the rates that are in force by the Pacific Steamship Company?

A. Yes. I charged the Anchorage Supply Company tariff rates for everything I carried on the barge Bangor, and this amount is added to their cost there.

Q. Added to the cost laid down in Anchorage?

A. Laid down in Anchorage.

QUESTIONS BY MR. STRATTON:

Q. Laid down in Anchorage includes that cost?

A. Includes that cost, yes.

Q. I will ask you one question here. For instance, on the freight earnings on the Galbraith Bacon shipment, what were your freight charges to them?

A. To whom, please?

Q. The Galbraith Bacon charge—that is for goods you bought from them and which belonged to you?

A. It belonged to me.

Q. I was trying to distinguish between the cargo that Mr. Mylroie owned and the cargo that somebody else owned. Did you ship anything on the Bangor for anybody besides yourself?

A. Merely this small shipment of Corlew and Kurtz.

Q. What is the total of that?

A. $368,29.

Q. That was your freight on that cargo?

A. That was the freight on that cargo.

Q. And that cargo was a total loss?

A. That cargo was a total loss isasmuch as the freight earnings were concerned—it was a total loss to me. There was none of it got passed Ketchikan.

Q. That entire shipment was a total loss?

A. No, it was sold here to the merchants—all that we saved of it.

Q. Had that freight been prepaid to you?
A. Not a cent—didn't receive a cent of it.
Q. And you never have received it?
A. Never have received it.
Q. Do you consider that you earned it?
A. I don't consider I earned a cent—I didn't deliver it.

Q. Do your shipping receipts provide that you do not earn the freight unless the goods are delivered?
A. I think I explained that Mr. had been down in Seattle when that ship left, and when I got the wire of the accident he instructed me to sell the stock if it was damaged in any way, shape or form—to sell it in Ketchikan and not to let it go to Anchorage; and Mr. Frederick, who had it fully insured, asked me to go over and get out the cargo and sell it in Ketchikan.
Q. Did you give them credit for the amount you received for that stock?
A. Yes.
Q. How much was it?
A. Almost $1000 I received out of $1825 worth of stuff.

THE COURT: Do I understand you to say that all of the cargo of the Bangor was your own with the exception of that shipment of Kurtz and Corlew?
A. Yes, sir, it was.

THE COURT: Have you offered in evidence, Mr. Gorham, the amount claimed on account of this Kurtz-Corlew shipment?

THE WITNESS: Yes—you will find it on the tabulated statement of cargo loss and damage. $838.75 is the net amount I will claim for that, after giving them credit for the goods sold to Heckman and for the sale of potatoes.

(Whereupon court adjourned until 2 o'clock P. M.)

AFTERNOON SESSION.

NOVEMBER 9, 1917, 2 P. M.

A. W. MYLROIE: On the witness stand.

DIRECT EXAMINATION (Cont'd.)

BY MR. GORHAM:

Q. In the statement, under the schedule of cargo loss and damage, these are the invoices of W. F. Jahn and Com-

pany, Galbraith, Bacon and Company, Ranning Lumber Company, and O. B. Williams?

A. Yes.

MR. GORHAM: We desire to include the invoices of the cargo where there was a total loss, none of which went forward, and we desire to include those in the exhibit which contains the invoices.

THE COURT: Does that increase your recapitulation?

MR. GORHAM: Oh, no.

THE COURT: There is no objection, I suppose.

(Said invoices attached to Exhibit L.)

Q. Look through Exhibit L and see if you have the invoice of W. F. Jahn & company, $88.40?

A. Yes.

Q. Galbraith, Bacon and Company, $1670.18?

A. Correct.

Q. Enrich Harrison Company, $98.66?

A. Correct.

Q. Ranning Lumber Company, $270?

A. Correct.

Q. O. B. Williams Company, $58.00?

A. They are all in.

Q. I will ask you what these are? (Showing papers to witness.)

A. These are the original invoices of the shipment—the Kurtz-Corlew shipment, that were on the ship. Mr. Gorham apparently had these in his files and didn't know it.

MR. GORHAM: Those are the ones we sent to San Francisco for, and which we found during the noon recess, and we desire to add those to Libellant's Exhibit N,—which are what?

THE WITNESS: Shipping receipts for the same goods.

THE COURT: That is also included in your recapitulation?

MR. GORHAM: Yes, sir.

Q. (By Mr. Gorham): Now, the Standard Oil invoice?

A. This is a copy of the original invoice.

Q. That should go where?

A. In with the partial loss.

Q. The same with the Patent Vulcanite Roofing Company?

A. Yes—that is a partial loss—goods in that list.
Q. W. P. Fuller and Company?
A. Yes.
Q. Are those the invoices and shipments you testified to this morning?
A. Yes; there should be more there; that isn't a complete list.
Q. There is W. P. Fuller Company, Standard Oil Company, Morningside Shingle Company—
A. And the Stimson Mill shipment.

MR. GORHAM: These we offer as Exhibit P, the invoices that the Libellant has testified to, which cover, in the tabulated statement which we will offer in a few minutes, the invoices of shipments under the heading "Damaged Cargo," and also includes the lumber invoices which are under the next heading in the same tabulated statement.

(There being no objection to the offer, said invoices were received in evidence and marked Libellant's Exhibit P.)

Q. You said you vessel was on Mary Island 10 days?
A. Yes, sir.
Q. And at Ketchikan 12 days?
A. Yes, sir.
Q. And what was the estimated length of time required to repair her?
A. 13 days.

MR. GORHAM: We are going to show what her deterioration was, by the deposition of Mr. Hubbard, and what it will cost to put the vessel in her former condition; and in that particular item of time, we are entitled to that under the Blue Jacket, the leading case there—we are entitled to charge them with the time our vessel is delayed in putting her in her forme condition.

Q. (By Mr. Gorham): You say that was 13 days?
A. 13 days.

MR. GORHAM: This evidence of 13 days is only tentative, because we will submit later the deposition of Mr. Hubbard.

Q. That makes 10, 12 and 13 days?
A. 35 days.
Q. 35 days?
A. Yes, sir.

Q. Your first voyage in 1917 of the Bangor, you left when?

A. March 22nd.

Q. And you arrived back in Seattle when?

A. I think it was May 5th.

Q. And that would be how many days?

A. 43 days I think it figures out.

Q. And you deduct what?

A. 22 days for delay at Ketchikan and Mary Island.

Q. Would leave a net length of time for the voyage of—

A. 21 days.

Q. How long were you loading for that voyage in Seattle?

A. 4 days is the estimated time for loading a barge.

Q. So that the whole time of that voyage, including the time of loading the barge, but exclusive of the time in Ketchikan, would be what?

A. 25 days.

Q. What were the gross earnings on that voyage?

MR. STRATTON: That is immaterial.

MR. GORHAM: We are going to show the earnings of that barge on which we base the demurrage, and the only way you can show it is to show what she did earn. We will show the gross earnings and the gross operation expenses and the net profits of the barge, and you divide that by the number of days on the voyage and it gives the rate per day.

MR. STRATTON: I understand, but it is not the profit that a person can make on one trip.

THE COURT: I will overrule the objection for the time being, and when I come to consider the case if it should not be taken into consideration I can disregard it.

MR. STRATTON: Exception.

THE WITNESS: I have a list here of how I arrived at that.

Q. What were your gross earnings for that voyage?

A. $9753.86.

Q. Have you an itemized statement of those gross earnings?

A. Yes, I have in the copy of the manifest. That doesn't figure out exactly as this one does—there is a few dollars discrepancy in it—that is a little in excess of this.

Q. Is this a true copy of your manifest?

A. A true manifest.

Q. With the name of the shipper, name of consignee, destination, number of packages, articles, cubic feet, weight, pounds, rate per ton, weight or measurement, Seattle wharfage, prepaid—is that a true manifest of that cargo?

A. It is.

Q. Showing the freight earnings?

A. Yes, sir.

Q. And those freight earnings are figured on the tariff rate as shown in the tariff sheet we introduced in evidence?

A. They are as far as I know—the rates I charge the Anchorage Supply Company.

Q. And this bill here, $101.47, original expense bill of the Pacific Steamship Company, what is that?

A. That is the advance freight from San Francisco to Seattle.

Q. Did you pay that at Seattle?

A. I did.

Q. What goods were those?

A. The roofing paper.

Q. (By Mr. Stratton): Is that an item of demurrage?

THE WITNESS: No, it is an advanced freight charge.

MR. STRATTON: That is not on the subject of demurrage?

MR. GORHAM: No, we would have to deduct that from our earnings.

THE WITNESS: That does not appear in the earnings at all.

MR. GORHAM: Then we will take it off of the manifest.

THE WITNESS: That does not show in the manifest at all.

MR. GORHAM: We offer the manifest in evidence.

(There being no objection, the said manifest was received in evidence and marked Libellant's Exhibit Q.)

Q. What are the gross earnings as shown by the manifest—you say there is some discrepancy?

A. Yes, there is, I think, if I haven't made an error, it is $9760.98.

Q. Instead of $9753.86?

A. Yes.

Q. Now, do you know what the gross operating ex-

penses on that voyage were, exclusive of your salvage expenses here—just the operating expenses for that voyage?

A. Yes, I have a list of that here.

Q. What was that?

A. $5731.48.

Q. Have you an itemized statement of those?

A. I have not.

Q. Will you make it up before you leave the court room this afternoon?

A. I cannot do that before I leave the court room. I will have to go to my records.

Q. Will you bring it tomorrow?

A. Yes.

Q. And the gross earnings of $9760.98, and the operating cost of $5731.48, would leave a net earning of $4029.42?

A. I think, if your figures are right, that would be it.

Q. And divide that by 25 makes $161 plus?

A. $161 a day earnings.

MR. GORHAM: Now, if the Court please, we have a witness in the court room who desires to get away, and I think I could withdraw this witness temporarily and examine Mr. Daly—it will only take a few minutes.

MR. STRATTON: I have no objection to that. I would like to have it understood, though, that our objection as to these gross earnings goes to any other testimony on that question, your Honor.

THE COURT: Very well.

(WITNESS TEMPORARILY EXCUSED).

J. J. DALY: Introduced as a witness on behalf of the libellant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. Mr. Daly, what is your business?

A. Manager of the Ketchikan sawmill.

Q. Wholesale and retail lumber merchant?

A. Yes, sir.

Q. How long have you followed that business?

A. I have been in the mill since 1911.

Q. At Ketchikan?

A. Yes.

Q. Do you know what finish lumber for interior work is?

A. Yes, sir.

Q. Clean, dry?

A. Yes, sir.

Q. Now, assuming you have 187,000 feet of clean, dry, finish lumber, all sizes, for interior house work, house finishing, in the hold of a vessel, like the barge Bangor—have you seen the barge Bangor?

A. Yes, sir.

Q. With the Bangor on the beach, and the tide ebbing and flooding in her hold so as to completely submerge that finish lumber, with the water getting up on hay, cement and lime, and with the former condition of the hold before the cargo was stowed—a certain amount of concentrates, which were formerly carried on the barge, had collected in the bilge of the ship, and the stained water from which would be carried up as the tide rose in the interior of the vessel, the lumber being, in that hold, submerged twice daily for 10 days, and that remained in that condition until the vessel was discharged at Anchorage some 10 or 15 or 20 days thereafter—

MR. STRATTON: Was the lumber covered with water during those 20 days?

MR. GORHAM: No, just in that wet condition—no water on the lumber after the 10 days being ashore on the Island. What, in your opinion, would be a reasonable deduction to make on the value of that lumber for market purposes?

A. That would be a hard matter to answer—a deduction on lumber of that kind, not seeing the lumber, and not knowing what condition it came out in; but judging from the condition you say, it would be damaged to a large extent, but I would not set any figure on the damage.

Q. Would you give it in percentage? I don't mean the figures per thousand feet, but would you say it would be damaged such a percent—one per cent or 99 per cent, or in between—to illustrate, would it be damaged half its value?

A. It could be under such conditions.

Q. Would it be under such conditions as I have given you?

MR. STRATTON: He doesn't know.

A. It would be hard for me to set a damage price on the lumber, not seeing it to know what condition it was in.

but the lumber would be damaged and would be damaged to a large extent under those conditions as you described.

Q. Now, with 200,000 feet of common lumber underneath the finish lumber, would that suffer damage under the same conditions?

A. That would depend, too, on what that was, whether it was finish, surfaced or rough lumber.

Q. Shiplap and rough lumber.

A. You would have some damage on your ship-lap.

Q. You couldn't say how much?

A. No.

Q. You would not know what percentage of its value it would deteriorate?

A. That is a hard matter to figure a price on. In some of those cases you have to sell your stuff for what you can get for it. You can hardly set a rule on what you can get for a damaged product.

MR. GORHAM: That is all.

MR. STRATTON: No cross examination.

(WITNESS EXCUSED.)

MR. GORHAM: We will state at this time that in the month of October we wired our witnesses at Anchorage to take a vessel from Anchorage in time to arrive here for this trial, November 5th, and they answered the wire saying that they would leave on the Watson and arrive here on the 3rd. For some reason or other they did not arrive, and if they arrive before the case is closed we would like the privilege of calling them on this part of the case.

THE COURT: Your witnesses as to what point?

MR. GORHAM: Deterioration of this lumber, that is all. They are the men handling Mr. Mylroie's yards at Anchorage.

THE COURT: Very well.

A. W. MYLROIE: The libellant herein, upon being recalled for further examination, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION (Cont'd.)

BY MR. GORHAM:

Q. Now, coming to miscellaneous expenses by reason of this wreck, on the tabulated statement, we note "wages of

crew at Mary Island and Ketchikan," the 22 days you say you were delayed?

A. Yes, sir.

Q. And what would be the total wages for the crew for that time?

A. The total is $239.00.

Q. How do you make it up?

A. Captain.

Q. At what rate of wages for the captain?

A. I will have to correct those figures. The captain I was paying $125 a month to, 2 sailors at $55, and one at $60.

Q. And the cook at $60, isn't it?

A. There was no cook on there. Captain Foster was doing the cooking for the crew.

Q. And what would that amount be?

A. A little in excess of $9 a day, which would be $198.00.

Q. $198.00 for the crew?

A. Yes, for the crew.

Q. And your own services for 24 days—why do you say 24 days?

MR. STRATTON: I think that item is entirely improper—he is the owner.

MR. GORHAM: He superintended the salvage operations.

THE COURT: It will be admitted subject to the same condition as I stated before.

A. I left Seattle on the 29th, and I think I allowed the time coming—I should have—which would make 24 days.

Q. Your expenses were $25 a day?

A. $25 a day, amounting to $600 for 24 days.

Q. Your business is what?

A. My business is the buying and management of shipping my cargo and my supplies to Anchorage.

Q. What is the volume of your business at Anchorage per year, approximately speaking?

A. Oh, approximately between $150,000 and $200,000 a year—that is what we pay a territorial license on.

Q. And you manage that business yourself with the help of—

A. A manager in Anchorage.

Q. And you go to Anchorage from time to time?

A. Yes.

Q. How often?

A. On an average of three times a year.

MR. GORHAM: That is simply as to the value of his services, if the Court allows them at all, if the Court please.

Q. You replaced the shackle?
A. Yes, I took it to a foundry—
Q. What did that cost?
A. $8.40.
Q. And what did the towing of your vessel, the barge Bangor, from Seattle to Eagle Harbor and return, upon her arrival at Seattle, upon her return voyage from this wreck for the purpose of repairing at the Eagle Harbor Yard amount to?
A. $50—$25 each way.
Q. And the deterioration of the vessel—this is tentative only, as it is shown by Mr. Hubbard to be $11,750.00.
A. That is correct.
Q. The cost of repairing and putting the vessel in her former condition?
A. Yes, sir.
Q. Then we have a recapitulation?

MR. STRATTON: What is the total of that?

MR. GORHAM: My recapitulation is—

THE WITNESS: Deterioration $11,750; towage $50; new shackle $8.40; A. W. Mylroie $600; wages at wreck $198; salvage operations $4,132.69; loss of freight earnings $3,341.03; cargo loss $8,080.12; demurrage, 32 days at $150 a day—

MR. STRATTON: Has there been any evidence as to that?

MR. GORHAM: Yes, it is $160 a day earning capacity, and we are charging demurrage at $150 instead of $160.

THE WITNESS: That is $4,800 for 32 days.

MR. GORHAM: And we add again 3 days more, on the same sheet, $450, making a total of $33,562.47. Now, then, above, on the recapitulation, we have added to the typewritten figures $35, and below we have deducted it again to correct the error; and we have added $111.23, which was the extra cost on the Standard Oil Company's bill at Anchorage by reason of delivering from steamship instead of barge. From the total of $33,562.47, we must deduct the difference between $239 and $198, wages at the wreck—$239 is put into the column and it should be $198—that would be $41.00, leaving the gross amount of our demand $33,521.47; and we give notice now that we will ask the Court for a decree in that

amount, although our former demand, and the prayer of the libel, is only $30,000.

We now offer in evidence, simply for the purpose of the Court's convenience, a tabulated statement of the salvage expense, loss of freight earnings, loss of cargo and damage, miscellaneous expense, demurrage, with the gross earnings and gross operation expenses of the barge, and the recapitulation, according to the figures as testified to by the witness.

(There being no objection, the said papers were received in evidence and marked Libellant' Exhibit R.)

Q. I show you a paper and ask you what that is?
A. This is the signal card that has been posted in the wheel house of the barge Bangor.

Q. Was that posted at the time of the wreck?
A. Yes, sir.

Q. In the wheel house of the Bangor?
A. At all times.

Q. At all times during your ownership of the barge?
A. During my ownership.

MR. GORHAM: We will offer that in evidence, if the Court please.

(There being no objection to the offer, said card was received in evidence and marked Libellant's Exhibit S.)

MR. GORHAM: The claimant consents, and we offer in evidence the following statement issued by the Department of Commerce, Lighthouse service, United States of America, 1917, corrected to January 1, on page 120, Pacific Coast—Alaska—lighthouses of the Pacific Coast—Alaska: "Mary Island, F. W., R. sector; on northeast shore of island," under the notation "Location. Latitude, N. Longitude, W." "55 55 53 131 10 57." "Light above high water; 67. Miles seen, 12-8. Candlepower, W. 490, R. 150," and the rest of the book, for the purpose of showing what the additional letters refer to.

(There being no objection, said book was received in evidence and marked Libellant's Exhibit T.)

MR. GORHAM: Will you agree that the tide was high on the 26th day of March, at Mary Island, Southeastern Alaska, at 2:06 A. M.?

MR. STRATTON: The tide table shows that.

MR. GORHAM: Will you admit the United States tide

table, issued by the Government, shows high tide on March 26, 1917, at Mary Island at 2:06 A. M.?

MR. STRATTON: Yes.

Q. (By Mr. Gorham): Mr. Mylroie, when you arrived at Ketchikan after you learned of the wreck of the barge Bangor, how soon after March 31st did you see either Captain Bjerre or Captain Johnson on the tug Commodore?

A. The following morning.

Q. Did Captain Johnson at that time make any statement to you regarding his presence or absence from the pilot house at the time the shackle parted, on March 26, 1917?

MR. STRATTON: When was that conversation?

MR. GORHAM: The day following his arrival here.

MR. STRATTON: When was that?

MR. GORHAM: He arrived here on the 31st, early in the A. M., he said, and Sunday he went to the wreck.

THE WITNESS: I went that day to the wreck.

Q. And you saw Captain Johnson that day?

A. I saw him but not to have this talk with him.

Q. Did you have a talk with him in reference to whether or not he was in the pilot house, at Mary Island or Ketchikan?

MR. STRATTON: When was that?

MR. GORHAM: I am asking if he had such a conversation, and then I will fix the time.

MR. STRATTON: You have to fix the time before you show whether you had a conversation or not.

THE COURT: The time, as I understand it, he places after the wreck.

Q. Did you have a conversation when you reached Mary Island, on this subject, with Captain Johnson?

MR. STRATTON: Now, what time did he reach the island?

MR. GORHAM: He has already testified to that.

MR. STRATTON: I want to know.

Q. You reached Ketchikan what time?

A. About midnight Saturday night or early Sunday morning—I cannot say just the exact time.

Q. What day of the month?

A. The 31st of March.

Q. That is Saturday—Saturday was the 31st of March.

A. Yes. I would like to make a statement here, and I think it would be perfectly fair to both of you. You are a little wrong in the question you are asking me.

MR. STRATTON: So you are asking him about a conversation on the 31st of March?

MR. GORHAM: No; Saturday night he arrived here, or Sunday morning.

Q. Did you go down to the wreck on Sunday morning?

A. I did.

MR. STRATTON: What day was that?

MR. GORHAM: That would be the day following the 31st of March.

Q. Did you see Captain Johnson that day?

A. I did, but not to talk to him.

Q. Did you see him the following day?

A. No, sir.

Q. That would be the 2nd day of April. Did you see him on the 3rd day of April?

A. I cannot state that—I hardly think so.

Q. Did you see him on the 4th day of April?

A. I cannot state that either.

Q. Or the 5th day of April?

A. I cannot state that either.

Q. You cannot tell what day it was?

A. I cannot.

Q. Did you see him within two or three days following your arrival at Ketchikan, at Ketchikan?

A. Within a week I did.

MR. STRATTON: You arrived at Ketchikan on the 31st of March or the morning of the first of April?

Q. (By Mr. Gorham): And sometime during that week you saw Captain Johnson at Ketchikan?

A. At Ketchikan.

Q. Do you remember having a conversation with Captain Johnson during that week, at Ketchikan, touching the question of his presence in or absence from the pilot house of the tug Commodore at the time the shackle parted?

MR. STRATTON: We object to that as being incompetent, irrelevant and immaterial, purely hearsay, and not a part of the *res gestae*. Any statement that Captain Johnson may have made would not be binding upon the claimant—would be no admission on the part of the claimant—not any evidence against the claimant; and I object to it on the further ground that too much time elapsed—

THE COURT: The objection is sustained.

MR. GORHAM: Exception. That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. When did you buy the barge?
A. On April 8, 1916.
Q. What did you pay for her?

MR. GORHAM: We object to that as immaterial, if the Court please.

THE COURT: It might bear on the question of the damage to the barge. For instance, if the barge wasn't worth to start with—

MR. GORHAM: If it wasn't worth, at the time immediately preceding the wreck, $11,000, it wouldn't be worth while repairing her, but what he paid for her the year before, with the rising market for floating craft, I do not think would make any difference.

MR. STRATTON: *Prima facie*, what he paid for her a year before would be approximately the value at the time of the wreck.

THE COURT: I will overrule the objection. It might throw some light on the matter.

A. $7,350.00.

Q. Have you spent any money on her in repairs between the time you bought her and the time she got ashore on Mary Island?

A. I have.

Q. How much did you spend in those repairs?

A. You asked me that question before and since then I have looked it up—$1,062.00.

Q. And that is all?

A. That is all.

Q. On those repairs.

A. Further than a little additional equipment which I have not included in that.

Q. How much did you pay for the equipment? I mean between the time you bought her and the time of going ashore.

A. Two slings, $100; an additional life boat, $185; and rope and stuff like that—I don't know—probably $500 would cover it all.

Q. And that did not include the shackle? The shackle you bought with the ship?

A. No, sir, I bought that earlier—that was bought in May, 1916.

Q. Where did you buy it?

A. From a ship chandler on the waterfront in Seattle.

Q. And those repairs, $1060, were all for the upper works, on or above the deck?

A. Some of it was for caulking her boats, from the water line up, but all of it was above the water line.

Q. Had you chartered that barge to other people during your ownership of it, prior to the time of this accident?

A. Never at any time.

Q. How many trips had you made, if any, to Anchorage prior to the one in March, 1917?

A. Made three trips in the year 1916.

Q. How many days did each trip take on an average, approximately?

A. 25 days would be the maximum.

Q. Now, what other use was the barge put to from the time you bought her up to the time of the first of February?

A. She was laid up for repairs, and tied up at the ..... Company's dock all during the winter.

Q. How many months was she tied up?

A. About two months.

Q. And the rest of the time she was in use?

A. Well, you can say she was and she wasn't. She was tied up in Port Etches for a month or two in the early part of the winter.

Q. Was that in addition to the time she was laid up?

A. Yes.

Q. That would be 4 months she was laid up?

A. Just about.

Q. And the rest of the time she was in use?

A. Yes.

Q. Going to Anchorage on the three trips?

A. Yes.

Q. And this trip in March was the fourth trip to Anchorage?

A. That is right.

Q. And what was the barge engaged in during that time other than going to Anchorage—what work?

A. No other work at all.

Q. Was that shackle second hand or new when you bought it?

A. The shackle was new.

Q. What did you pay for it?

A. I haven't the least idea. I paid them $150 for that and other work.

Q. You don't know when that shackle was made, of course?

A. No, I do not.

Q. What is the name of the firm you bought it from?

A. I think it is Sundy and Earle.

Q. Now, in reference to your charge of $25 a day, what were you doing during those 24 days?

A. I was at Ketchikan.

Q. I didn't say here at Ketchikan—I said any place,—I said what were you doing during those 24 days?

A. Well, I took practically full charge of the wreck work. I stayed right here constantly, hiring the men, seeing that they worked, and worked right along with them, and I was the only man that would get down under the ship and patch her up and fix her.

Q. You worked during the entire 24 days?

A. I did.

Q. Now, in your accounting—your bookkeeping—you keep a set of books of your business at Anchorage?

A. I do, absolutely.

Q. Do you charge the business with a salary of $25 a day?

A. I do not.

Q. You do not charge any salary?

A. No.

Q. You just take everything that is velvet and you do not make any charge on the books, is that right?

A. I would like to correct that statement. Since the first of the year I have made a charge on the books of a salary—the first of this year.

Q. How much?

A. $250.00.

Q. A month?

A. Yes; and I will explain why I do that if you wish.

Q. All right.

A. I have a manager there and some boys that are working in the business, and I pay them a good salary, and

I pay them in addition a commission on the earnings of the company to get them interested in the business.

Q. And that charge of $250 a month is simply a bookkeeping proposition?

A. Oh, no.

Q. Do you draw your salary every month by check?

A. No, I do not.

Q. And it is more of a bookkeeping proposition to determine your assistants' percentage at Anchorage than it is to give you an actual salary?

A. Yes, sir.

Q. Do I understand you are the Anchorage Supply Company?

A. I am.

Q. Is it a corporation?

A. No, sir, not a corporation or partnership.

Q. You are simply doing business as the Anchorage Supply Company?

A. Yes.

Q. You have no partners?

A. No partners.

MR. STRATTON: We cannot cross examine on the question of the gross expenses because he says that he has not yet made up a statement of them and is not able to give the items from recollection, so we would like to reserve the right to cross examine him on that when he has brought that up from down town.

MR. GORHAM: All right.

Q. (By Mr. Stratton): Now, in reference to the $40 item that you claim to have paid out for the use of a gasoline engine, do you remember that item?

A. I do.

Q. To whom did you pay that?

A. Mrs. Clarke.

Q. Did you pay it by check?

A. No—I beg your pardon—I paid it to Mr. Winston, and he in turn paid it to Mrs. Clarke.

Q. Mr. Winston is a lawyer here?

A. Yes, he was collecting the rent.

Q. Did you pay him by check?

A. By check.

Q. Have you got the check here?

A. I haven't, I don't think.

Q. Where is it?

A. I will see if I paid him by Ketchikan check or Seattle check.

Q. Didn't you bring all of those checks with you?
A. All of the Ketchikan checks, yes.
Q. Not the Seattle checks?
A. No.
Q. Why didn't you bring the Seattle checks, Mr. Mylroie?
A. Because I have receipts. Mr. Winston gave me a receipt for it.
Q. Is that receipt among the receipts you have offered in evidence?
A. I think it is—that would be by Seattle check.

MR. GORHAM: Yes, here it is.

MR. STRATTON: That is all at this time. If we think of anything between now and the time we want to examine him on the gross expenses we will take it up.

RE-DIRECT EXAMINATION

BY MR. GORHAM:

Q. I will ask you, Mr. Mylroie, you say your three trips averaged 25 days a trip—did that include your stop at Port Etches?
A. No, it would not include that.
Q. And including that what would your average trip be?
A. I don't recall the number of days that we were delayed there.
Q. I think it is in the record.
A. From a month to two months, I said.
Q. You don't remember now how long?
A. I do not. Captain Bjerre ought to be able to tell you that.

CAPTAIN BJERRE: I cannot tell the number of days. It wasn't anything like two months. I think it was 30 days or something like that. I wouldn't be positive of that. You see, she was in Port Etches a long time after she left Anchorage.

Q. Do you know what they ran in Port Etches for?
A. The captain lost his nerve and wouldn't do anything until Captain Bjerre came up there and brought him home.
Q. This $40 item—what was the demand of the owner of the engine upon you—for how much?
A. They demanded $150—they wanted to make me keep the engine.

MR. STRATTON: We do not make any question on that. We admit that he paid that much for that engine—we do not deny that at all.

Q. Now, the receipt reads, "This day received of A. W. Mylroie forty and no/100 dollars, said sum being for rent of engine, belonging to Mrs. Clark, and attorney's fees in connection with said claim." How much was attorney's fees and how much was not?

A. That is not for me to state.

Q. What did you take a receipt of that kind for if she made a demand for $40?

A. She didn't make a demand for $40. She insisted on me taking the engine and paying her $150 for it. The engine wasn't an engine we could rely on, although it did the work on the trip we used it.

Q. You didn't want the engine?

A. I didn't want the engine, and I compromised the matter. I offered her $40 for the use of it, which her husband said would be a fair rental.

Q. Did you personally offer it to her?

A. I offered it to her and she refused it, and she placed it in Mr. Winston's hands for collection, and I tendered the $40 to him, which he took.

Q. What did you say you purchased this vessel for?

A. $7350.

Q. What year?

A. 1916.

Q. State whether or not you know whether there has been any increase in the market price of tonnage on the Pacific Coast and Puget Sound of vessels of this character since April, 1916?

A. I know it to be a fact.

Q. How large an increase—what would be the increase between April, 1916 and March 26, 1917—that is, what would be the increase in 11 months, if you know?

A. I can just answer that by stating that I turned down an offer—

MR. STRATTON: I object to that. Evidence of offers is incompetent, irrelevant and immaterial. We object to any offer. A man might be willing to pay a large price for some specific purpose.

THE COURT: I think the question ought to be, what was the market value of the vessel at the time.

Q. What was the market value of the barge Bangor when she left Seattle on this March voyage, if you know?

A. I would like to answer that by stating of a refusal that I made.

Q. No, that would not be the market value.

A. I couldn't give you the market value of her if you won't allow me to state that.

Q. You don't know then her market value at that time?

A. I know what she was priced at.

MR. STRATTON: We object to that.

THE COURT: What do you mean by priced at?

A. By steamship assessors who went all over her.

Q. (By Mr. Gorham): Just previous to this voyage?

A. Just before she left.

MR. STRATTON: That is pure hearsay.

Q. (By Mr. Gorham): Who were the assessors?

MR. STRATTON: Same objection, incompetent, irrelevant, immaterial, and hearsay.

THE COURT: Objection overruled.

A. I cannot call them by name. I can recall one of them by name.

Q. Who was he?

A. It was Mr. Smith, of the Ballard Marine Railway. He had with him the manager of the Marine Supply Company and another man—a marine, ship man.

Q. Marine Supply Company of Seattle?

A. Yes.

Q. Didn't Mr. Smith testify to that man's name?

A. No, I think not.

THE COURT: What was the occasion of the assessment?

A. Just going over the ship. I was asking for some work to be done on her by the Ballard Marine Railway Company, and they came over and looked her over.

THE COURT: It was not an official assessment of any kind?

A. Oh, no.

THE COURT: I thought it was some official assessment you were going to prove.

MR. GORHAM: No, shipping men making a survey of the vessel.

THE COURT: You use the words survey of the vessel—it was a private survey of the vessel?

A. Yes.

THE COURT: They were not inspecting it by order of any court, or on any official business?

MR. STRATTON: With the view of making some repairs on it, that is all.

THE COURT: I think that would be purely hearsay.

MR. GORHAM: All right, if the Court please.

THE WITNESS: The firm offer that I had—

MR. STRATTON: We object to any offer—that is no evidence.

MR. GORHAM: Let me ask you who made the offer?

MR. STRATTON: The same objection, it being immaterial who made the offer.

THE COURT: I do not know—it may be preliminary. That question certainly cannot do any harm.

MR. STRATTON: Our position is that if the offer is incompetent, irrelevant and immaterial, the name of the person who made it certainly would be.

THE COURT: I think he may answer that.

MR. STRATTON: Exception.

Q. (By Mr. Gorham): Who made the offer?
A. I cannot give you his name.
Q. Oh, you don't know his name?
A. No.

MR. GORHAM: Then we withdraw all of that testimony. We admit that is entirely incompetent. That is all.

(WITNESS EXCUSED.)

JAMES L. AVIS, JR.: Upon being recalled as a witness on behalf of the libellant, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. Mr. Avis, did you make a measurement of the slag spot in the shackle you identified yesterday?

A. Yes, sir.
Q. Did you make it with an instrument?
A. Yes, sir.
Q. What was the instrument?
A. It is known as a planimeter.
Q. Explain to the court what a planimeter is, and how it can ascertain the area of such a small slag spot in that shackle.
A. The planimeter mostly used in this country, and the one I have in my laboratory, is a very delicately constructed instrument, which has a tracer or pointer to trace over irregular surfaces which are very hard to determine the area of mathematically. At the other end is a wheel and a cylinder with a dial and a vernier to take the readings; and in starting at a given point and following completely around the outline of this area, and coming back again to that point, by taking your readings off of this dial and the cylinder and the vernier, it gives you the area in square inches of the surface traversed.
Q. You said where the surface was irregular—did you mean the surface or the outline?
A. The outline.
Q. And this was on an etched surface, was it not?
A. A perfectly smooth etched surface.
Q. And what did you find the square area of that slag spot by that process to be?
A. It measured .08.
Q. 8/100 of an inch?
A. Of a square inch.
Q. And the entire area of the shackle by that process measured?
A. 1.66.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. I want to ask you a question on your examination yesterday, not on this point. You said the tensile strength of the shackle was 43.48 tons?
A. 43.4.
Q. Is that the tensile strength of both sides of the shackle, or of just one side of the shackle?
A. That was the tensile strength of a specimen cut out of one piece of the shackle.
Q. I thought the shackle had a tensile strength of 43 tons. You mean to say that the small piece that you took

out and subjected to the machine test for tensile strength was 43 tons—that it took 43 tons to break this little piece which I hold in my hand, which is Libellant's Exhibit D-5 and D-6? It wouldn't take 43.4 tons to break that, would it?

A. Oh, no.

Q. What do you mean when you say the tensile strength of the shackle is 43.4 tons?

A. On the basis of the tensile strength per pound per square inch.

Q. Yes, but what does that apply to, that 43.4 tons? Does it apply to one side of the shackle, or both sides of the shackle, or what?

A. That applies to an area of 1.66.

Q. In other words, it would take a load of 43.4 tons to break the side of the shackle which is Libellant's Exhibit D-7—or I will change that—it would take a load of 43.4 tons to break Libellant's Exhibit D-7, from which you took the small portion that you applied the load to?

A. That is right.

Q. Then it would take twice 43.4 to break both sides of the shackle if the load were applied to both sides, wouldn't it?

A. Yes, sir.

Q. So that the shackle, then, should have withstood a load before breaking of 86.8 tons?

A. If applied on double that area of 1.66.

Q. Wasn't the load applied to both sides of the shackle equally when the shackle broke by reason of the hawser pulling it apart?

A. I presume it was.

Q. Then the tensile strength of that shackle was twice as much as you have heretofore stated?

A. If the load was applied uniformly.

Q. And you don't know where the load was applied, do you? You have no means of telling where that load was applied? You can answer that without hesitating—you don't know, do you?

A. The load was applied—

Q. You don't know, do you? Do you or do you not?

A. The load was applied on the pin—

Q. Do you or do you not know where that load was applied?

A. It was applied on the pin and the loop end of the shackle.

Q. Which would make it right in the center of the loop end of the shackle, wouldn't it, necessarily?

A. I presume so.

Q. Therefore the load then was applied equally to both sides of the shackle, wasn't it?

A. I presume it was.

Q. And it would take a load of 86.8 tons to break it under those conditions, wouldn't it?

A. Under those conditions, yes, sir.

Q. Then if the cable had a tensile strength of 54 tons, the cable would have broken before the shackle broke, wouldn't it?

A. Under those conditions, yes.

Q. The anchor chain would have broken before the cable would have broken, wouldn't it, because you have stated that the tensile strength of the anchor chain was 47 tons?

A. Yes, sir.

Q. And the anchor chain would have broken, wouldn't it?

A. Yes, sir.

Q. And according to your testimony, if the load was applied from the center of the loop both the wire cable and the anchor chain would have broken before the shackle would have broken, isn't that right?

A. Under those conditions, yes, sir.

Q. And you don't know, as you say, where the load was applied but presume it was applied from the center of the loop of the shackle, is that right?

A. I presume it was.

Q. Why didn't you say that yesterday, Mr. Avis?

A. Just that condition did not occur to me.

Q. Now, another thing; you stated yesterday that the only way wrought iron could crystallize, except by sudden impact, would be by the application of heat, didn't you?

A. I don't quite understand you.

Q. Didn't you say yesterday that the only way wrought iron could be crystallized, except by a sudden impact or strain, was by the application of heat to it?

A. Yes, sir.

Q. What do you mean by heat?

A. The heat, for instance, utilized in making it ready to forge—in forging it.

Q. In other words, you mean fire, don't you?

A. Yes.

Q. What is energy when applied to iron? Suppose I take a hammer and pound this shackle, wouldn't that create a heat in that shackle?

A. No, sir.

Q. It would not. If I pounded it hard enough wouldn't it make it so hot that you couldn't hold it in your hand?

A. It would.

Q. Isn't that heat?

A. Yes, that is heat.

Q. Then when you stated that wrought iron can be crystalliped only by the application of heat, except by a sudden impact, you intended to be understood that it could be crystallized only by application of heat by fire to it, didn't you?

A. Yes, sir, because you could not make it sufficiently hot nor bring about the conditions by hammering that would result from heating in the fire.

Q. Couldn't make it hot enough?

A. No, sir.

Q. Steel will crystallize, won't it?

A. Yes, under very similar circumstances.

Q. Is it necessary in order to make steel crystallize, except by a sudden impact, to apply heat by fire to it?

A. Not necessarily.

Q. Will steel crystallize by constant vibration, or by vibration?

A. No, sir.

Q. It will not. Won't steel rails crystallize—rails for railroads?

A. Not steel rails that are correct chemically—it is a chemical condition.

Q. What do you mean by a chemical condition?

A. Disintegration occurs.

Q. What difference is there now between this chemical condition you refer to and crystallization? Isn't it the same thing?

A. No; a chemical condition is not necessarily crystallization.

Q. Isn't it usually, ordinarily and properly known as crystallization of a steel rail when they are taken up because of this chemical condition, isn't it commonly known as crystallization?

A. It is a misnomer to call it crystallization.

Q. So you are quibbling when you say that steel rails won't crystallize, aren't you?

A. They will crystallize under certain given conditions which constitute a faulty rail.

Q. Which means crystallization when reduced to ordinary language that we can all understand, isn't that so?

A. I couldn't answer that question.

Q. Crystallization is merely the slipping of the molecules, isn't it, or the lack of cohesiveness of the molecules?

A. Not necessarily.

Q. It may be that?

A. What do you mean by slipping of the molecules?

Q. I mean where the molecules slip apart, or slip over each other, causing a line, if looked at through a microscope, to appear in the object?

A. No, that isn't true.

Q. It isn't true. What is crystallization, then, if that isn't it?

A. Are you speaking of iron?

Q. I am speaking of iron, yes.

A. Crystallization is a change in the molecular construction.

Q. What is it changed by? Isn't it changed by the molecules slipping?

A. No, it is caused, in the case of a break by a violent rupture, by a change in the molecular construction or in over-heating.

Q. What is that shackle made of?

A. That shackle is made of iron.

Q. What kind of iron?

A. Merchant wrought iron.

Q. What is the difference between wrought iron and Norway iron?

A. Very little difference—Norway iron is wrought iron.

Q. And it is the very best quality of iron, isn't it?

A. It is a good quality of wrought iron.

Q. What is Swede iron—is that the same as Norway?

A. Norway and Swedish iron are rather a misnomer—they are about the same thing.

Q. And they are both wrought iron?

A. They are both wrought iron.

Q. Do you know what the shaft of a gas engine in a boat is made of ordinarily?

A. What it is made of?

Q. Yes.

A. Shafts are usually made of steel.

Q. Do you know whether or not the shaking of that shaft in a gasoline boat or a steam boat, caused by the working of the engine, will crystallize the steel shaft?

A. It will not.

A. It will not. Now, if you could be convinced that steel shafts in gasoline boats and steam boats constantly crystallize by use in the boat and that they are changed or thrown away because of that crystallization, would you change your mind?

A. I could not be convinced on that score because that does not occur in a material that is tested prior to its

stallation and found to be correct—it is faulty before it is put it.

Q. You would say that if they become crystallized or if they break from no apparent cause, that it was not due to crystallization or to some patent defect in the shaft itself?

A. It is due to the chemical composition.

Q. Do you know what a cold-shut is?

A. Yes, sir.

Q. Used in logging?

A. Oh, in logging?

Q. In logging, yes.

A. The only way I know the term cold-shut is a term used in conjunction with cast iron.

Q. Do you know anything about logging, where the logs are dragged into the water by means of a donkey engine?

A. No, sir, I do not.

Q. I will ask you this question, then. Would a wrought iron connection which is used to connect two steel cables upon which a strain is put, crystallize by use?

A. Not by use.

Q. It would not crystallize by use. What would cause the crystallization of that wrought iron connection, which I will call a cold-shut?

A. Its chemical composition, which would be defective in the first place or it would not crystallize.

Q. Then it would crystallize if it were defectively constructed—that is, it would crystallize by use if defectively constructed?

A. No, crystallization would exist through its chemical composition or the heat treatment.

Q. Oh—is it frequent in wrought iron instruments that they are defectively constructed?

A. I could only answer that question by saying that a great deal of workmanship is not free from defects.

Q. And that being the case, those wrought iron instruments are apt to break on a less strain than they are actually constructed to carry?

A. It would depend on the nature of the defect.

Q. Certainly it would. The greater the defect the more apt they would be to break on a strain that they should carry?

A. Well, it would depend on the character of the defect.

Q. Well, I say, the greater the defect the more apt they would be to break on a small strain?

A. Oh, yes.

Q. Do you know whether or not Lloyds Insurance people require at short intervals shafts of the engines and vessels

to be taken out and treated in order to overcome crystallization that has been occasioned by their use and their jarring—do you know, I say, whether Lloyds do that?

A. No, they do not.

Q. You know they do not?

A. I know they take them out but not for that purpose.

Q. What do they take them out for?

A. They take them out because of the stiffness that is engendered entirely through torsion.

Q. That is a twisting and bending?

A. Yes.

Q. Do you know what a bull chain is in a mill?

A. No, sir.

Q. Take a wrought iron chain that runs in a slanting groove from a mill pond in which saw logs are kept up to the floor of the mill where the logs are sawed—this chain is drawn up over this incline with a log attached to the lower end of the chain, by means of a sprocket wheel that attaches itself into the links—an endless chain—I will ask you whether or not that wrought iron chain would become crystallized by that use?

A. I should not think it would.

Q. Why?

A. It would not become crystallized from that use unless there was present the same chemical conditions or improper heat treatment that I mentioned a while ago.

Q. In other words, if every link of that chain were absolutely perfect and without any defects whatever, there would be no crystallization—that is your statement, is it?

A. There should not be.

Q. There should not be, and you say that there is very much imperfect workmanship in the construction of instruments made of wrought iron and therefore many defects in them, is that so?

A. I didn't say very much imperfect workmanship—I said defects exist in any materials in workmanship.

Q. Are those defects latent or patent?

A. Well, that would depend upon the type or kind of defect.

Q. What defects would be patent?

A. In wrought iron work?

Q. Yes.

A. That is forged?

Q. Take a wrought iron instrument, such as a chain, and tell the Court what the patent defects would be?

A. Well, they could be of several characters—defects that could be present, such as an improper weld.

Q. Apparent—obvious to the eye?

A. Not necessarily. Where a metal is scarfed—two ends brought together to form a weld—there is just a possibility that that weld may not have become uniformly welded and so form what we might term a lamination.

Q. What is a lamination?

A. It is where the surfaces of the metal are not absolutely intact—does not form a homogeneous mass.

Q. You say that would be a patent defect, would it?

A. Yes, sir.

Q. Even though it was not discernible by a close examination of the outside?

A. That is true.

Q. Even though it would require an opening up of the wrought iron instrument to discern this defect, you would still call it a patent defect, would you?

A. Oh, yes.

Q. Then a patent defect, in your opinion, is one that can be determined only by testing?

A. That is right.

Q. What do you call at latent defect?

A. Just what do you mean by latent?

Q. I am asking you what the difference is between a latent defect and a patent defect.

A. Well, we never term them as latent and patent defects.

Q. You have heard those expressions before?

A. No, I have never heard them.

Q. Never heard of a latent or patent defect?

A. Not in connection with the testing of steel and iron.

Q. In connection with anything?

A. We never speak of them in those terms.

Q. I will change it then—in iron, steel, or anything else what is the difference between a patent and latent defect, if you know?

A. I don't know what you mean by a latent defect.

Q. You don't know what a latent defect is?

A. I don't know what you mean by that question.

Q. That is what I am asking you, if you can explain to the Court what a latent defect is?

A. Not under the conditions—

Q. I am not imposing any conditions at all. I am asking you if you know what a latent defect is in any instrumentality?

A. Latent might be defined at dormant.

Q. What is a synonym for dormant?

A. I don't know—I cannot answer your question.

Q. I show you Libellant's Exhibit D-2, and will ask you

what you call that defect near the center of the surface there?

A. That is a slag spot.

Q. Is that a defect in the instrumentality?

A. It could be classed as constituting an impurity.

Q. Now, looking at it as you are now, would you call that spot a latent or a patent defect—just as the instrument is, as you are looking at it now?

A. I would not call it either. We do not use those terms. We simply speak of them as slag spots or defects—whatever shows up on the etching—we don't use those terms.

Q. Do you know whether those terms are used in any other business than your business?

MR. GORHAM: We object to that, if the Court please. This is an expert on iron and steel and not other businesses.

THE COURT: I think he may answer that question.

Q. Why, I know they are used.

Q. But you don't know what they mean?

A. Not in connection with my business.

Q. Do you know what they mean in connection with other businesses?

A. No, I don't.

THE COURT: I think you have gone far enough, Mr. Stratton.

Q. Take a bar of wrought iron 2 feet long, and suppose one end of it was heated to the proper degree of heat for welding, and one end of it was welded over in a way so the welded portion, the portion that was turned over, was 6 inches long, and it was properly welded, would that welded portion be less apt or more apt to crystallize than the unwelded portion of the bar?

A. If it was burned?

Q. I am not saying if it was burned—I am saying if it was heated to a heat necessary and proper for welding, and there was a proper weld—I am not attaching any other conditions to it—I am asking you whether the welded end would be more apt to crystallize or less apt to crystallize than the unwelded end?

A. No, sir.

Q. No, sir—I don't understand what you mean. That question cannot be answered intelligently by no, sir.

A. I understood you to ask me if the welded end would be more apt to crystallize.

Q. I said which end would be more apt to be susceptible of crystallization?

A. Neither end would be susceptible of crystallization if the conditions were right.

Q. If the conditions were right—I do not understand that.

A. The conditions as you described, and the chemical composition of the material.

Q. You mean then that neither end would crystallize, is that it?

A. It ought not to.

Q. How might either end crystallize?

A. They would not be crystallized under those conditions.

Q. Couldn't they be crystallized?

A. By over-burning.

Q. That is all. Would a sudden impact crystallize them?

A. No, sir, unless it ruptured them, and then you get the crystallization of the ruptured surface—the rest of the material would not be crystallized.

Q. The rupture or breaking would cause the crystallization?

A. Surface crystallization.

Q. And that and by over-burning are the only ways that that iron can be crystallized?

A. If the conditions are as you describe them.

Q. What conditions did I describe?

A. Perfect workmanship, correct heat treatment and normal chemical conditions.

Q. Your statement, in other words, is to the effect that except by burning, crystallization of wrought iron can only be caused by a breaking?

A. That is true under the conditions you have just described.

Q. Of a perfect piece of wrought iron?

A. Yes, sir

Q. And if the piece of wrought iron were imperfect, under what conditions could it be crystallized?

A. It would already be crystalline through improper heat treatment or the chemical conditions.

MR. STRATTON: That is all.

RE-DIRECT EXAMINATION

BY MR. GORHAM:

Q. Now, Mr. Avis, you testified that under the condi-

tions given by counsel there was 86.8 tons strain on this shackle.

MR. STRATTON: No, he didn't testify to that.

MR. GORHAM: I understood you to ask him if the strain that broke the shackle wasn't double the breaking load of each shaft—didn't you ask him that?

MR. STRATTON: I asked him a good many questions. I would have to refer to the record to see whether I asked that particular question or not.

Q. Now, how would you determine the breaking load of a complete shackle other than by putting it in the machine? Could you determine it?

A. You couldn't determine it.

Q. I will ask you what is the composition of this pin, Exhibit D-1—is that wrought iron?

A. I don't know.

Q. You have not testifed (*sic*) it in any way?

A. No, sir.

Q. Could that be determined by an etching?

A. Etching would not demonstrate positively what the material was.

Q. Now, if this shackle was in use so that the loop of the shackle was through the eye of the hawser, and the pin of the shackle through the chain, and the impact came, do you think that the pin would give way before an 86 ton impact was put upon it.

MR. STRATTON: He has not shown himself qualified—he says he don't know what the pin is made of.

MR. GORHAM: I will withdraw that question.

Q. Do you know whether both sides of that shackle broke instantaneously?

A. I do not.

Q. You could not tell from the condition of the pieces?

A. No, sir.

MR. GORHAM: That is all.

RE-CROSS EXAMINATION

BY MR. STRATTON:

Q. You testified yesterday that they did break instantaneously, didn't you?

MR. GORHAM: No, he didn't say that.

MR. STRATTON: I am asking him if he did.

A. I don't remember saying that.

Q. Now, you stated a moment ago that you could not tell the tensile strength of the shackle without testing the shackle, is that right?

A. Yes. sir.

Q. And you could not test the entire shackle because you did not have it all, did you?

A. No, sir.

Q. But you had both sides of the shackle and you tested one side?

A. Yes, sir.

Q. And you did not test the other side?

A. Not for tensile strength.

Q. And you could have taken a piece out of the side that you did not test and have put that alongside of the sample that you did test and put them in the machine and tested them both together, couldn't you?

A. No, not both together.

Q. Why not?

A. You can only make one test at a time.

Q. Isn't the machine big enough to put those two little pieces side by side and test them at the same time in the same machine?

A. That is never done.

MR. STRATTON: That is all.

THE COURT: Is there any other defect in wrought iron that would come under the head of a defect except crystallization?

A. Yes, sir; poor welding constitutes a defect, your Honor, and that refers back then to the proposition of workmanship; a weld may not be uniform in cross section, and that would necessarily constitute a defect.

THE COURT: Is there any other defect that you can see in that shackle, as far as you have examined it, except the crystallization?

A. Only that defect which constitutes the slag spot.

Q. (By the Court): And would that slag spot take away any of the strength of that shackle, and if so, what percentage?

A. Approximately 5 per cent.

THE COURT: In other words, it would take 5 per cent less of a load to break that shackle having that slag in it than it would to break an absolutely perfect shackle?

A. Yes, sir.

THE COURT: That is all.

MR. GORHAM: I understood you to say there was a slag defect present in the section that was subjected to the tensile strength test?

A. There was.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

(Whereupon court adjourned until 9 o'clock A. M.)

MORNING SESSION.

NOVEMBER 10, 1917, 9 o'clock A. M.

A. W. MYLROIE: The libellant herein, upon being recalled, having been previously duly sworn, testified as follows:

CROSS EXAMINATION

BY MR. STRATTON:

Q. The net operating expenses, I think you stated yesterday, that you deducted from your gross earnings were $5731.48?

A. Yes, sir.

Q. And that covers what period?

A. That covers the 25 days that we allowed for the trip only.

Q. And that $50 item you paid to the B. C. Mills Company was towage, was it?

A. Towage, yes.

MR. STRATTON: That is all.

MR. GORHAM: I would like to ask the witness, not on redirect, but on a matter I overlooked yesterday.

THE COURT: Very well.

QUESTIONS BY MR. GORHAM:

Q. I will ask you, Mr. Mylroie, whether or not the claimant in this case libeled this vessel in the month of July, 1917, at Seattle?

A. Yes, sir, they did.

Q. And in that suit you instructed your counsel to ask for an order of sale?

A. Yes, sir.

Q. Pending the suit?

A. Yes, sir.

Q. And the order of sale was granted and the vessel sold at public sale by the marshal?

A. Yes, sir.

Q. What was the vessel sold for?

A. I repurchased it at $7900.00.

Q. Were there any other buyers?

A. There was only one other buyer against me,—he bid 78 and he stopped when I bid 79.

Q. And you bought the vessel in the month of July or August 1917 at this marshal's sale for $7900?

A. Yes, sir.

Q. Did you accompany this barge on the former trips?

A. Yes, sir.

Q. How Many?

A. Two trips.

Q. Was this shackle used on those two trips?

A. Yes, sir.

Q. Was it used in towing?

A. Yes, sir.

Q. Where were those trips?

A. They were from Seattle to Anchorage, towed by the steamer Northland. I would correct that—a moment ago I said I was on the barge—I was on the Northland—I wasn't riding on the barge.

Q. And on those trips you left from Seattle or some other port?

A. From Seattle to Anchorage.

Q. Where did you get your stock?

A. We loaded the barge at Port Alberne—that is on the west coast of Vancouver Island.

MR. GORHAM: That is all.

THE COURT: Did you go through these same waters?

A. Yes.

THE COURT: Did you have any accident?

A. None whatever, although we went outside in every case, right outside of Cape Decision, and went in storms and everything of that kind.

THE COURT: That is all.

(WITNESS EXCUSED.)

CAPTAIN T. R. FOSTER: Being recalled on behalf of the libellant, being previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR: GORHAM:

Q. Had you made any trips previous to March, 1917, with this barge?

A. Yes, sir.

Q. How many?

A. Two.

Q. From where to where?

A. From Alberne to Anchorage.

Q. And return?

A. Yes, sir, returned to Seattle.

Q. In each case?

A. Yes, sir.

Q. What tugs did you have at that time or either one of those times?

A. The first tug was the steamer Northland and the next steamer was the Haro.

Q. In the case of the Northland was this same shackle used?

A. Yes, sir.

Q. In Connection with the towing device?

A. Yes, sir.

Q. In the case of the Haro did you use the same shackle?

A. Yes, sir, with the exception that we were towed around from Port Alberne to Nanaimo with the , and then from Nanaimo we used a shackle belonging to the Haro, and that was taken off here in Ketchikan and the regular shackle put on and then we continued on the trip.

Q. With this shackle that is in evidence here?

A. Yes, sir.

MR. GORHAM: That's all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. Did you know of any defect in the shackle before you went on this trip?

A. This shackle?

Q. Yes.

A. You mean this shackle that we used?

Q. Yes.

A. No, sir.

Q. You didn't know of any?
A. No, sir.
Q. Are you acquainted with John Clark of Ketchikan?
A. Yes, sir, I know who he is.
Q. Did you see him on the deck of the Bangor at Mary Island about the 29th of last March?
A. He was down there, yes; I don't know just what time he was down there.
Q. And at that time and place, didn't he, Mr. Clark, say to you: "Hello, Cap., how did this thing happen to you?" and didn't you reply—his remark applying to the fact that the vessel had been stranded on the beach—and didn't you reply: "Why, they sent me out of Seattle with a mess of junk?
A. I don't remember the conversation at all.
Q. You did have a conversation with him?
A. I know we was down there talking, but in no conversation that I ever had did I put that junk application to the barge since I have been there.
Q. You did have a conversation with him on the barge?
A. Nothing more than to say "Hello, Clark" and he said "Hello, Cap."
Q. I say you did have a conversation with him on the barge—he was there and you spoke to him?
A. Yes, I spoke to him.

MR. STRATTON: That's all.

(WITNESS EXCUSED.)

CAPTAIN FRANK JOHNSON: Called as a witness on behalf of the Libellant, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. You were master of the tug Commodore on the voyage with the Bangor in tow in March, 1917, from the International boundary line to Mary Island?
A. Yes.
Q. Do you remember the night that the barge broke adrift off of Mary Island?
A. Yes.
Q. Who was on watch—what members of your crew were on watch that night after 12 o'clock?

A. Captain Bjerre, Sam Dawe and myself.
Q. Did you have a man in the wheel house?
A. Quartermaster or deckhand.
Q. You had a man in the engine room?
A. Yes.
Q. Did you have a lookout?
A. Well, we were all on the lookout.
Q. I asked if you had a lookout?
A. Yes.
Q. What lookout did you have?
A. The three of us in the wheel room?
Q. And that is all?
A. That is all.
Q. You had no lookout between the wheelhouse and the stem of the vessel?
A. No.

MR. GORHAM: That's all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. How far is the wheelhouse from the stem of the vessel on the Commodore?
A. Forty feet.
Q. How high is the floor of the wheelhouse above the bow of the vessel on a straight line?
A. About 12 feet, I should think?
Q. Is there any obstruction between the wheelhouse and the stem of the vessel?
A. No.
Q. Is there anything to obscure the sight or prevent sound?
A. Nothing at all.
Q. Across the bow. That night, from 11:19 until the barge stranded—until the shackle broke—were the windows of the pilot-house open?
A. Yes.
Q. Where were you stationed?
A. Stationed looking out through the window; we had the window open and we were laying out through there?
Q. Laying out?
A. Laying out.
Q. Could you discern objects from the vessel better from the pilot-house than from the stem of the vessel?
A. Yes.
Q. Could you discern objects from the wheelhouse better than from any other portion of the vessel?

A. Yes.

Q. How about hearing sounds from the wheelhouse as compared with hearing them from the stem of the vessel?

A. Hear much better.

Q. On vessels, towing vessels, in the waters of southeastern Alaska, where the wheelhouse is situated on the tug similar in location to the location of the wheelhouse on the Commodore, state whether or not it is usual or customary to have a lookout except the men on watch in the wheelhouse?

MR. GORHAM: We object, if the Court please, to that as incompetent; the witness has not stated that he had any knowledge of it at all.

THE COURT: I do not think that is cross examination —I don't think that any of your last four or five questions are cross examination; I think it is a part of your case.

MR. STRATTON: That's all.

MR. GORHAM: That's all.

(WITNESS EXCUSED.)

MR. GORHAM: Now, if the Court please, we desire to offer in evidence the deposition of John L. Hubbard, taken in Seattle, on stipulation of counsel, on the 24th of October, 1917, and returned and filed in the office of the clerk of this court, and duly published at the beginning of the trial.

(Whereupon said deposition was read in evidence.)

CAPTAIN T. R. FOSTER: Recalled on behalf of the libellant, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. You remained with the barge Bangor from the time of the wreck until when—until now?

A. Yes, sir.

Q. Did you go to Anchorage on her on that trip?

A. Yes, sir.

Q. And back to Seattle?

A. Yes, sir.

Q. Was she there taken to the Winslow Marine Railway and put on the dock?

A. Yes, sir.

Q. You have heard the deposition of Mr. Hubbard—you were here?

A. Yes, sir.

Q. Were you here at that time?

A. Yes, sir.

Q. State whether or not between the time the vessel was taken off the beach at Ketchikan and her being placed on the dock at Winslow, as Captain Hubbard states, the vessel at any time grounded?

A. You mean from the time she was on the ways down here repairing?

Q. Yes, after the wreck.

A. No, sir.

Q. Did you pass through any unusual storms?

A. No, sir, it was the finest trip I ever made.

Q. Did she go aground at any time?

A. No, sir.

MR. GORHAM: That is all.

Q. (By Mr. Stratton): Are you still in the employ of Mr. Mylroie, the libellant?

A. Yes, sir.

MR. STRATTON: That is all.

(WITNESS EXCUSED.)

MR. GORHAM: We desire to offer all exhibits which have been identified, if they have not been formally offered.

Q. State whether or not between the tim ethe vessel was

Q. Was she there taken to the Winslow Marine Rail-

MR. STRATTON: Very well.

CAPTAIN FRANK JOHNSON: Upon being recalled upon behalf of the libellant, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. On this voyage in March, 1917, when the Commodore had the barge Bangor in tow, how much of a crew was on the vessel?

A. Thirteen all told, I think.
Q. Thirteen with Captain Bjerre?
A. Yes, sir.
Q. What were Captain Bjerre's duties?
A. He was on there as pilot.

MR. STRATTON: There is no allegation, your Honor, that there was not a sufficient crew; it is not within the issues, and we object to the testimony on the ground that it is incompetent, irrelevant and immaterial.

THE COURT: I do not know, I am sure, what the object and purpose is; I do not know what legal efficacy it has, but I do know that if it does not have any the Court can disregard it.

MR. STRATTON: Exception.

Q. (By Mr. Gorham): Was he signed on as pilot on the ship's articles?
A. No.
Q. Did you testify in this case before—was your deposition taken last June in Ketchikan?

MR. STRATTON: We object to that as being incompetent, irrelevant and immaterial—he is cross examining his own witness.

MR. GORHAM: The Court will take into consideration that this was the master of the tug owned by our adversary; and this is preliminary.

THE COURT: There is no objection to his answering that question, whether his deposition was taken.

Q. Was it taken?
A. He was on the articles as purser.

MR. STRATTON: Wait a minute—the witness does not understand the question, apparently.

THE COURT: The question was whether your deposition was taken in Ketchikan at some time.

A. Yes.
Q. (By Mr. Gorham): Did you testify at that time that Captain Bjerre was on the articles as purser?
A. Yes, sir.

MR. STRATTON: We make the same objection.

THE COURT: Objection overruled.

MR. STRATTON: Exception.

Q. (By Mr. Gorham): What other members of the crew were there?

MR. STRATTON: I think the articles are the best evidence of that.

MR. GORHAM: He knows the fact.

MR. STRATTON: A person may know lots of facts that are in a written document.

THE COURT: The articles are the best evidence.

Q. (By Mr. Gorham): How many were in the engine room?

A. Two engineers.

Q. Is that your full answer? How many were in the engine department?

A. In the engine department? Two engineers, two firemen and two coal passers.

Q. Did you have a cook?

A. A cook, yes.

Q. Three deck hands?

A. Three deck hands.

Q. Who else?

A. A mate.

Q. And yourself?

A. Myself and Captain Bjerre.

Q. What were Captain Bjerre's duties?

A. He is the shore skipper—he don't make trips like that.

Q. But what were his duties on this voyage?

A. As pilot.

Q. And did you and the mate stand watch and watch?

A. Yes.

Q. All the way up on this voyage?

A. Yes.

Q. Did you have helmsmen standing a watch on this voyage?

A. Yes.

Q. And were those helmsmen two of the deck hands that constituted the three deck hands?

A. Yes.

Q. What was the other deck hand?

A. The day man.

Q. And the men in the engine department were confined entirely to that department?

A. Yes.

Q. And the cook was confined entirely to his duties in the galley?

A. Yes.

Q. What did this boatswain do—this day man—walk around the deck all day?

A. Yes.

Q. And slept at night?

A. Slept at night unless we called him, or something else.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. There was one mate?
A. There was one mate.
Q. What was his name?
A. Sam Dawe.
Q. And yourself as captain?
A. Yes.
Q. Three deck-hands?
A. Yes.
Q. One cook?
A. One cook.
Q. Two coal passers?
A. Yes.
Q. Two firemen?
A. Yes.
Q. Two engineers?
A. Yes.
Q. And Captain Bjerre as pilot?
A. Yes.
Q. Making thirteen—was that the full crew of the tug?
A. That is over the full crew.
Q. More than the full crew?
A. Yes.

MR. STRATTON: That is all.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

MR. GORHAM: Now, if the Court please, we desire permission to amend our libel to allege that this vessel at the inception of the voyage was unseaworthy and that she was improperly and insufficiently manned, in that she did not have a sufficient crew to maintain a legal lookout on that vessel during this voyage.

MR. STRATTON: We object to the amendment at this time, your Honor.

THE COURT: How will it injure you? Pleadings in admiralty are pretty liberally construed and amendments are pretty liberally allowed unless there is some injury done to the other side.

MR. STRATTON: That is true, and I haven't anything to say except that we object to the amendment of the libel at this time.

THE COURT: In the absence of any showing that the respondent will be prejudiced in any way, the amendment will be allowed.

MR. STRATTON: Exception.

LIBELLANT RESTS.

MR. STRATTON: Now, at this time, immediately after libellant has announced that he has closed his case, the claimant moves for an order dismissing the libel on the ground that the evidence shows the libellant is not entitled to recover anything, and that the libel should be dismissed. Our position is that the evidence affirmatively shows a lack of evidence—the burden is upon the libellant to show in a case of this kind that the tug, the master or the crew have been guilty of negligence which contributed to the loss, which the libellant has failed to do. Furthermore, under the written contract which has been offered in evidence, even assuming that negligence had been shown, the libellant is not entitled to recover, because the contract expressly exempts the owner of the tug and the tug from any liability on account of any negligence of the owner of the tug, the master or the crew.

THE COURT: Do you care to argue it, Mr. Stratton?

MR. STRATTON: No, it would take three or four hours to present the law. It is not a formal motion—we feel we are right in making it.

THE COURT: The motion will be denied.

MR. STRATTON: Exception.

MR. GORHAM: Before we rest, I desire to have all of our exhibits which have been marked for identification filed as exhibits. There are one or two—there was this chart and the plan drawn by the expert, and they can be numbered the same as the identification.

MR. STRATTON: Yes, that is all right.

DEFENSE.

MR. STRATTON: We offer in evidence, and ask to read at this time, your Honor, the deposition of Captain Thomas H. Cann, taken under stipulation.

MR. GORHAM: We object to that, if the Court please, because this is not the time,—the deposition never had been published, and this is not the time to request the publication of a deposition. It should be published before the commencement of the trial. We do not care to argue the question.

MR. STRATTON: Publication merely means the opening,—counsel did mention that matter to me before.

MR. GORHAM: It means more than that,—it means our right to object to them.

MR. STRATTON: The time to object to a deposition is the time it is offered in evidence. Counsel spoke to me about publishing his depositions, and I stated that we would publish ours later on when we offered ours.

MR. GORHAM: I asked you at the time I got an order publishing mine, before the trial, if you would ask for an order publishing yours, and you did not do it, and we are objecting to it now—it comes too late.

THE COURT: The admiralty rules of this court (rule 50) provides: "Depositions taken under commission, or otherwise, shall be forwarded to the Clerk immediately after they are taken and be filed on their return to the Clerk's office, in term or vacation, and notice thereof shall be forthwith given by the party for whom they were taken to the proctor of the opposite party, and they shall be opened and published by order, of course, on notice by either party to the other. And all objections to the form or manner in which they are taken or returned shall be deemed waived, unless such objection shall be specified in writing and filed within four days after the same are opened, unless further time shall be granted by the Judge." I think, however, that in the absence of any showing that you would be prejudiced in any way, Mr. Gorham, that I shall not insist on that rule. You may read the deposition.

MR. GORHAM: Exception.

(Whereupon the deposition of Captain Thomas H. Cann was read in evidence.)

(Whereupon court adjourned until 2 o'clock P. M.)

AFTERNOON SESSION,

NOVEMBER 10, 1917, 2 o'clock P. M.

MR. STRATTON: The claimant offers in evidence the following depositions, taken under stipulation: Captain J. E. Brinker, Captain Thomas H. Cann, Stanley Griffiths, Captain J. Jacobson, Captain Thor. Nielsen, Captain O. Olsen, Captain S. Snoddy, Captain E. W. Smith; and also all of the exhibits which are mentioned in those depositions, and in fact all that were filed with it.

MR. GORHAM: We make the same objection to the receipt of all of these depositions, and the exhibits, that we did before, that they were not published at the time, or prior to the commencement of the trial, and have never been published.

THE COURT: Very well—my ruling will be the same.

(Whereupon said depositions were read in evidence.)

CAPTAIN H. R. SMITH: Introduced as a witness on behalf of the claimant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. Where do you reside, Captain?
A. At present at Ketchikan.
Q. How long have you lived in Ketchikan?
A. Two years.
Q. What is your business?
A. Mariner.
Q. Master mariner?
A. Yes, I have been.
Q. How long have you been a master mariner?
A. Since 1889.
Q. What has been your business during the last two years?
A. Fishing.
Q. Where?
A. Ketchikan and in Alaskan waters.
Q. What was your business prior to that time, after you got your master mariner's papers?
A. Master, pilot, bridge officer, navigating officer.

Q. Were you a seaman before you were a master mariner?

A. Yes, sir.

Q. When did you become a seaman?

A. '72.

Q. And between that and '74 what did you do?

A. Sailed on the Atlantic Coast.

Q. And from 1874 to 1878 what did you do, Captain?

A. I was sailing out of British Columbia—Victoria, B. C.

Q. On what?

A. On the old steamers—the old Otter, Hudson Bay boat, and the Grappler.

Q. What were you?

A. Sailor.

Q. State whether or not at that time you were helmsman on the boats?

A. We didn't carry no quartermaster in those days, so everybody who was on the ship would be helmsman.

Q. Every seaman stood his watch at the helm?

A. Yes, sir.

Q. Where did the Otter ply?

A. Between Victoria, B. C., and Wrangell, and way ports.

Q. In going from Victoria, B. C., to Wrangell and way ports, did you go through the Revillagigedo Channel?

A. Yes, sir.

Q. What were you on the Grappler?

A. Also sailor.

Q. Were you helmsman also on the Grappler?

A. Yes, sir.

Q. Where did that ply?

A. Same waters.

Q. What did the Otter do—what character of vessel?

A. She was like the early-day boats—had accommodations for passengers as well as freight.

Q. And the Grappler?

A. The Grappler the same way.

Q. In those years, on the Otter and Grappler, between 1874 and 1878, how many round trips did you make between Seattle and Revillagigedo Channel?

A. Once a month.

Q. That would be about 48 trips?

A. Yes.

Q. Were you on the

A. Yes, sir.

Q. What vessel was that?

A. She was chartered by Dunsmuir and Sons to run up in '98, to Skagway.

Q. On her did you pass through Revillagigedo Channel?

A. Yes.

Q. How long were you on her?

A. Six months.

Q. What position did you hold on her?

A. Pilot.

Q. Was that a freight and passenger boat?

A. Yes, sir.

Q. How many round trips did you make during this six months?

A. A trip is about 12 days.

Q. About two a month?

A. Yes.

Q. That would be twelve trips. Now, were you on the Bertha?

A. Yes, sir.

Q. What character of vessel is the Bertha?

A. Passenger boat and freighter.

Q. How long were you on her?

A. Two years.

Q. And what was your position on the boat?

A. Second officer, chief officer, pilot, in rotation.

Q. Where did she ply?

A. Between Seattle and the Alaskan waters as far west as Kodiak.

A. Through the Revillagigedo Channel?

A. Yes, sir.

Q. How many round trips did you make on that boat?

A. We averaged a round trip a month.

Q. That would be 24 altogether?

A. Yes, round trips.

Q. Were you on the Yucatan?

A. Yes, sir.

Q. What were you on her?

A. I was on her as second officer, and finished as chief officer.

Q. What years were you on her?

A. That was the year that Captain O'Brien was captain of her, and that is from 1908 to 1910—somewheres around there.

Q. How long were you on the Yucatan?

A. I think, as near as I remember, about 8 months.

Q. Did you pass through Revillagigedo Channel?

A. Yes, sir.

Q. In the operation of that boat?

A. Yes, sir.

Q. About how many round trips did you make on that boat?

A. We only passed in through Revillagigedo Channel on the way down.

Q. About how many times did you pass through Revillagigedo Channel one way during those eight months, or so?

A. Call it 8 or 9 times.

Q. And were you an officer on the steamship Seward?

A. Yes, sir.

Q. For how long?

A. I think between four and five months.

Q. What year, about, was that?

A. That was about the same year I left the Yucatan—I got transferred on the Seward.

Q. And what officer were you on the Seward?

A. Second officer and chief officer.

Q. Between what points did the Seward ply?

A. Between Seattle and Cordova.

Q. Di i you pass through this channel?

A. Yes, sir, on the way down.

Q. How many times did you pass through it, one way?

A. About five times.

Q. Were you on the Nome City?

A. Yes, sir.

Q. How long?

A. I think it was as near as I can tell now four months.

Q. What year, about?

A. That was 1903 or '4—I wouldn't be sure.

Q. What position did you hold?

A. Chief officer.

Q. How long were you on that boat?

A. As near as I can get to it is about three or four months.

Q. How many trips did you make through the channel on her?

A. We came through on the way down, about four trips—three or four trips.

Q. Were you on the Spokane?

A. Yes, sir.

Q. She was a passenger ship?

A. Yes, sir.

Q. And freight. How long were you on her?

A. Six months.

Q. What position did you hold on her?

A. Third and second officer.

Q. How many round trips did you make through this channel on her?

A. Averaged a trip every 12 days—something like that.

Q. That would be about 15 to 18 trips?
A. Somewhere around that?
Q. Were you on the Montea?
A. Yes, sir.
Q. Is she a freight and passenger vessel?
A. Freighter.
Q. How long were you on her, Captain?
A. I think about two or three months.
Q. Did you ply in this channel?
A. Yes, sir.
Q. How many trips did you make on her through this channel?
A. On the way down—we brought her down about three trips, I think—down here.
Q. Were you ever employed on a tug going through this channel?
A. Once.
Q. What tug was that?
A. The Tyee.
Q. How long were you on the Tyee?
A. Six months.
Q. What was your position on her?
A. Mate.
Q. Was the Tyee a sea-going tug?
A. Yes, sir.
Q. How many round trips did you make through the channel?
A. Only one trip.
Q. What year about?
A. About 1902.
Q. Did you have a tow at the time you went through there?
A. Yes, sir.
Q. What kind of a tow?
A. Barge.
Q. Were you ever employed on the Geodetic Survey boat?
A. On the Taku.
Q. How long,—how many trips did you make through the channel on that boat?
A. I made one trip.
Q. What was your position on that boat?
A. Mate.
Q. One round trip?
A. No, just one trip.
Q. Were you ever employed on the steamship Copeland?
A. Yes, sir.
Q. What kind of a vessel was she?

A. Freighter.

THE COURT: Don't you think you have qualified him enough?

MR. STRATTON: I think so, but I want to show he has made 150 trips.

THE COURT: Ask him the question.

Q. About how many round trips have you made on these vessels through this channel?

A. I couldn't exactly figure it out—somewheres about 150 trips.

Q. Now, during the last two years have you been through the channel?

A. I have been fishing in the channel off and on.

Q. Navigated a boat through there?

A. My own boat.

Q. Who navigated it?

A. Myself.

Q. How many times have you been through there on your own boat, as navigator, during the last two or three years?

A. Three or four times.

Q. From your experience state what you have been able to determine in reference to the tides and currents in Revillagigedo Channel.

A. I never took much notice of it until I became bridge officer or pilot, and then I noticed that tides with a western set in that channel would be stronger than others, and I always found a current setting out towards the westward—towards Dixon's Entrance; and I found it stronger in the spring and winter than I did in the summer time, accounting for the heavy strong currents coming out of the inlets.

Q. I will ask you whether or not you found the current, at the same stage of the tides, on different days in the same condition?

A. It didn't make any difference, in my way of thinking,—I found the current had a westerly set and I was prepared to meet it.

Q. What was the set of the current, do you recall, on an ebb tide?

A. Well, I haven't given much study about the currents at different stages of the tides, because I give up depending on tide tables because I found, especially these last two or three years, that a tide table was very little practical use to us except we wanted to find out if the water was rising or falling on the beach; but so far as the current is concerned, the current seems to be running any old way.

Q. In navigating vessels through that channel have you been through there at all stages of the tide?

A. Yes, sir.

Q. Both in the day and night?

A. Yes, sir.

Q. When the wind was from the southeast too?

A. Yes, sir.

Q. Are you acquainted with the tug Commodore?

A. Yes, sir.

Q. And with the barge Bangor?

A. I have seen her.

Q. Assuming that the tug Commodore was towing the Bangor, which was loaded with about a thousand tons of freight, and that the hawser connecting the two was 180 fathoms in length, and connected to the towing machine on one end—the towing machine being on the tug—and the other end of the hawser being attached to a shackle, which in turn was attached to the anchor chain of the barge; and assuming that you passed abreast of Tree Point light at 11:19 P. M. on the 25th of last March; that you picked up Tree Point light, and that the tug in passing Tree Point was from half a mile to a mile abreast of the light; that there was a strong breeze blowing, which gradually increased to 30 miles an hour or upwards; that the tow was properly following; that there were frequent snow squalls; that it was raining, continued to rain—more or less sleet; and that it was high tide at Mary Island at 2:06 A. M. on the 26th of March; and that at the time the vessel came abreast of Tree Point light she steered a course of N. W. ½ W., taking into consideration a deviation of 2 degrees to the east, of the compass, which would make the chart course N. W. 3/8 west; that the vessel was traveling on that course at the rate of about 7½ miles an hour; that she proceeded on that course from 11:19 to one o'clock, which would be an hour and 39 minutes; that at one o'clock the tug changed her course ½ a point to the north, steering a compass course N. W., considering that the compass had a deviation of 2 degrees to the east; and that the tug proceeded on that course for 45 minutes at the rate of 5 miles an hour, and at that time, 1:45, the vessel, tug, found herself close in to Mary Island, that is, the small island east of Mary Island,—do you know where that is?

A. Yes, sir.

Q. I will ask you whether or not in your opinion under those circumstances that was the proper course for the tug to steer?

A. You mean you ask if this hauling in closer—

Q. I am asking you if that was the proper course, going N. W. 3/8 W., according to the chart for 12½ miles or

thereabouts; and I want to have included in that question that at one o'clock the vessel slowed down to 5 miles an hour,—I am asking you, Captain, whether or not, going on a course N. W. ½ W., and then at one o'clock changing the course to N. W., compass course, was the proper course, under those circumstances, for the tug to follow?

A. If I had been in the pilot house and on board the boat, and seen the circumstances and the water conditions, most likely I would have done the same thing.

Q. Have you taken a United States chart and drawn out that course on it, Captain?

A. Yes, sir.

Q. I will ask you if that is a Government chart, Captain? (Showing witness Claimant's Exhibit No. 20 for identification.)

A. It says so on the corner, United States Geodetic survey.

Q. Mariners consider that it is?

A. Yes.

Q. Now, I will ask you if you have laid out on this map a course starting ½ mile abreast of Tree Point light—

MR. GORHAM: Let him say what he has done.

A. I first laid the course half a mile off Tree Point at N. W. 3/8 W. run about 12½ miles, then changed the course to N. W. ⅛ north, 3¾ miles, which takes me off Mary Island, carrying through there about 2 miles and a quarter. Then I laid the next course parallel one mile off Tree Point light, which course, if I had run that course on through, would have took me a mile off Mary Island light, but changing it identically the same as the first course, N. W. ⅛ N., takes me a mile and a half off,—would have taken me a mile and a half off.

Q. If you had proceeded on the first course, where you started a half mile off of Tree Point light, how far would that course, if you proceeded on it, pass Mary Island?

A. A mile and a half.

Q. I will ask you under the circumstances of the question that I have given to you, to state whether or not those courses would or would not be the proper courses to pursue?

A. You couldn't take any other courses unless you wanted to hit the shore one side or the other.

Q. In your operations on the sea as a mariner have you ever operated towing machines?

A. No, sir, but I have been towed with boats that had towing machines, when I was captain of the barge Palmira.

Q. How long were you captain of that?

A. It was about 4 months, I think.

Q. Did you have opportunity at that time to observe the working of towing machines?

A. Yes, sir.

Q. And the effect of the working of towing machines upon the hawser?

A. Yes, sir.

Q. And the connections?

A. Yes, sir.

Q. What is the purpose of those towing machines?

A. To relieve the strain in a sea-way on the tow line.

Q. I will ask you whether or not if a tug has a tow such as the Bangor—the tug Commodore and the barge Bangor—and the tug should port her helm so as to bring the tug around to a course at right angles to the course she has been pursuing, and the barge was not given any signal to port her helm and did not port her helm in fact, what track would the tow—the barge—follow in reference to the tug?

A. Follow the lights.

Q. That wasn't exactly the question. I asked you what path the barge would follow in reference to the wake of the tug?

A. When a steamer puts her helm over so as to make a right angle, before she can turn the vessel following her has to make the same turn, if she steers accordingly.

Q. But if the tow does not steer accordingly, what track would she follow?

A. An absurd track—no track at all—something has to give way then.

Q. Just draw a little sketch here, if you will, of a tug and tow that are going at the rate of 5 miles an hour, and the tug ports her helm so that if she keeps it ported she will go at right angles to the course she has been pursuing and make a circle—what would be the track of the barge, assuming that the barge did nothing with her helm? Mark the tug T. Now, mark the course of the tug under those conditions.

A. The tug ports her helm, she swings around this way, in this direction—the tow has to follow around.

Q. In other words, mark the course of the tug A-B. Now, mark the course of the barge—how would the barge follow—what position would the barge follow in with reference to the tug? Now, mark the course of the barge C-D. Now, if Mary Island were to the left of this course state whether or not under those conditions the barge, by reason of the change of course, would come closer to the island or farther away from it, assuming that you were coming north from Mary Island.

A. She would, if she didn't change her helm.

Q. She would come farther away from it?
A. She would come closer in.
Q. Which is east on that map?
A. Here.
Q. And Mary Island is west?
A. Yes.
Q. Does that show the barge would come closer to the Island or farther away from it?
A. If she didn't change her helm she would have headway enough to go into it.
Q. How long—
A. Until something gave way, of course.
Q. What I want to know is if there is a tendency of the barge to cut the corners more than the tug would?
A. Yes, that is right, too.
Q. And if she cuts the corners would she come closer to the island, or would she go farther away from it?
A. She would go farther from it.
Q. Is that what your diagram shows?
A. Goes away from it, yes.

MR. STRATTON: We offer that as part of the examination of this witness.

(There being no objection said diagram was received in evidence and marked Claimant's Exhibit No. 21.)

Q. I will ask you whether or not from your experience on tug boats, and in the waters up here, you know what is the custom in reference to the use of a taffrail log in these inland waters on tug boats or other boats?
A. None whatsoever; I have never used taffrail logs in inland waters. We use them outside, and as soon as we strike the Alaskan waters or inland waters we take our logs in because you cannot depend on them.
Q. I will ask you whether or not you know what the custom is in reference to using a hand-lead in the waters of Southeastern Alaska, and especially the waters of Revillagegido Channel?

MR. GORHAM: That depends upon what conditions he uses them under.

MR. STRATTON: I asked him if it was the custom to use them at all.

THE COURT: I think he may answer that question.

Q. Do you know what the custom is?
A. My experience up here the last 45 years, we carry a hand lead; that is in case we have to go to anchor, and that

is the only time I know of we ever use a lead in inland waters.

Q. Do you know what the custom is in reference to giving signals by a tug boat to a barge that is in tow when the tug is about to make a change of course?

A. The time I was working for the Puget Sound Tow Boat Company the mates and captains received a card which explained what signals to give to the tow, and at that time—which was in 1902 or '03—the only signals we gave was to slack out your hawser or take in your hawser, set your fore and aft sails, square sails, take them in, let go your anchor.

Q. So far as you know is there any custom prevailing in these waters for the tug to give a signal to the tow when the tug is about to change its course?

A. Never heard of it.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. Do you know the publication issued by the United States Government called the Alaskan Coast Pilot?

A. Yes, sir.

Q. Did you ever study that in reference to the tides and currents in Southeastern Alaska waters?

A. I used to in the early days—the old edition, but I haven't looked at it lately.

Q. What did the old edition say in reference to the tides and currents in Revillagegido Channel?

A. When I said I studied I meant to say I have read it but I never paid much attention to it because I went more or less on my own local knowledge.

Q. Did you find that your local knowledge supported the statements set forth in that Alaskan Coast Pilot?

A. I never compared my knowledge with the Alaska Coast Pilot.

Q. So you don't know whether it is correct or not?

A. No, sir; I wouldn't say anything about it.

Q. You say that if the tug ported her helm and made a turn at right angles and the barge did not port her helm that the barge would make an absurd track—what do you mean by that?

A. She would not follow the track of the tow boat—she would make a track of her own.

Q. Now, if the tug turned at right angles she would follow the hawser, wouldn't she?

A. If she ports her helm also, yes, sir.

Q. And if she doesn't port her helm where would she go?

A. She will have to be pulled by the tug herself—that releases that strain on her.

Q. And if you were, on a dirty dark night, in that channel, with snow squalls at intervals so that you could not see the tow's light, and you might conclude that they couldn't see the tug's light, and you were going to make a sudden turn, it would be a good precaution, wouldn't it, to give the tow a signal?

A. Well, I understand there was snow squalls at intervals but I never seen, excepting very few exceptions, it so thick you could not see the guide, steering, light of the tow boat.

Q. I will ask you if the evidence in this case shows, and if it is a fact that the snow squalls at intervals were so thick that you could not see the lights from the barge to the tug or from the tug to the barge, and there were several moments of snow so thick that you could not see the guiding lights, then don't you think it would be a proper thing for the tug to give a signal to the tow?

A. It would if there was such an understanding between the two masters.

Q. Wouldn't it be a good thing to do even without an understanding?

A. They might have done it.

Q. Wouldn't it be a wise precaution to take?

A. Well, I don't know—giving whistles from one boat to another, unless there is an understanding before they leave a place, say, if anything goes wrong midway on the trip, then I wouldn't blow no whistles, no, because it might be misunderstood.

Q. But if you had a card which showed one long whistle was to port the helm, that would be a wise precaution, wouldn't it?

A. Oh, yes, if he had a card.

Q. Do you know whether there was such a card on the Commodore on this night?

A. No, sir.

Q. Or on the barge?

A. No, sir, I am not acquainted enough for that.

Q. Do you mean to say that on those cards that were issued by the Puget Sound Tug Boat Company they had not any signal for porting the helm?

A. Not in my time, no.

Q. No signal at all for porting the helm?

A. No.

Q. Now, if the tow did not port her helm when the barge suddenly made this turn, why, there would be considerable

strain on the hawser, wouldn't there, and something would have to give way?

A. If the barge did not make the turn with the tow.

Q. Then when the tow made the turn there would be a heavy strain—

A. There is no such thing as a right angle turn with a steamer—it is imposible—it is ridiculous—your cannot do it.

Q. You can port your helm so that under that ported helm you are at right angles to your former course, can't you?

A. Oh, yes, you can do that.

Q. And this heavy strain under these conditions would be there, notwithstanding the towing machine, wouldn't it, if the barge did not port her helm?

A. It all depends on what speed she was making.

Q. Five miles.

A. That is a slow speed.

Q. I am not asking if it is a slow speed,—I am asking you if there would not be a heavy strain under those conditions, notwithstanding the towing machine.

A. It would be a strain, but not out of the way—not so but the towing machine could stand the strain.

Q. It would be a greater strain than a steady straight pull, wouldn't it?

A. Yes, than the average.

Q. And if the barge did not port her helm with the tug then it would be heavier, wouldn't it?

A. Not at that speed.

Q. Not at 5 miles?

A. No.

Q. It would be heavier than a straight pull, wouldn't it?

A. Oh, yes.

Q. And if they were going 7½ miles?

A. The strain would be heavier.

Q. Notwithstanding the towing machine?

A. Why, yes, there would be some strain, sure.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. I will ask you whether or not, if the tug put her helm hard over so as to make the vessel go at right angles to the course it had previously been going, and there was a towing machine on board the tug properly working, there would be any sudden strain or any sudden jerk on the towing gear?

A. No, there wouldn't be, no.

course accordingly for Mary Island. The course we steered by there was, by our compass, N. W. ½ W., and I believe that was the usual course for the Commodore to take over that run; however, that was the proper chart course for that distance, and we run on that course.

Q. Just a minute—what was the deviation of your compass?

A. The deviation was 2 degrees to the east.

Q. And that would make the chart direction on that course what?

A. It would make the actual course Northwest 3/8 west—just about.

Q. From your previous courses and distances what did you figure the speed of the vessel was when you started from Tree Point north?

A. Between 7½ and 8 knots.

Q. Now, go ahead—you said you set your course—

A. Yes, we set our course northwest ½ west; I stayed in the wheel-house at that time keeping a sharp lookout, along with Captain Johnson, watching for the weather to clear; and also we were keeping a sharp lookout at the same time for the Whale Rocks and the Black Rocks, and I thought from the time that we had run that we ought to be clear of those rocks—I don't remember exactly the time that would take us, but along after 12 o'clock quite a little bit, I think—I was not watching the time. We saw land on the port quarter, just the outline of it, and it looked as if it was Duke Island, and I presumed it was Duke Island; at that time there was no point of land or anything to recognize it by, but we saw the outline of the land quite plainly there, and the sky looked as if it was going to clear from the southwest—we both of us saw the land there—

Q. You mean Captain Johnson and yourself?

A. Yes. And I asked him if it would not be advisable to haul the tug out a little bit, that we might possibly be a little too close to Mary Island, and also slow her down and wait for the weather and possibly give it a chance to clear up, because it looked as if it might clear from the southwest. And one reason for slowing down, at that time we were burning Nanaimo coal, which makes an awful lot of smoke, and the wind at that time was a little bit starboard, and it was blowing the smoke over the port bow in the direction that we wanted to see the Mary Island light and the land, and it obscured our vision to a great extent, and by easing the vessel up the smoke nuisance would be done away with to a great extent, besides giving the weather a chance to clear in the meantime. Well, we changed the course then, and I heard Captain Johnson direct the helms-

man to change one-half a point to the north, which would make the course then N. W., and we run along on that course for—oh, I don't know just how long, probably half or three-quarters of an hour; I didn't mark the time down myself, Johnson marked it, I believe, and we sighted a small island just about fair ahead—just about right ahead.

Q. How far were you from that small island when you first sighted it?

A. Distance is a pretty hard thing to determine very closely; I estimate about half a mile, probably a little more than that; not any closer.

Q. Did you see that island as soon as it was visible to

A. Yes, I presume I did; I was keeping a very close the eye from your tug?

lookout.

Q. When the change of course was made one-half point to the north so that the tug took a course N. W., you said the tug slowed down?

A. Yes, the tug slowed down.

Q. Prior to that time do you know whether Captain Johnson signalled the engineer to stand by his engine?

A. Yes, sir, he did.

MR. GORHAM: I think you are leading the witness right along; I don't like to interrupt you, but I don't like for you to lead him all the time.

MR. STRATTON: I did not intend to ask leading questions.

Q. Prior to the time you changed the course do you know whether or not the Captain gave any signals?

A. He gave a stand-by bell to the engineer sometime before that, yes.

Q. What is your recollection of the length of time before that?

A. Oh, I should say about a quarter of an hour or 20 minutes.

Q. Did you hear any answer to that signal that Johnson gave?

A. Yes, sir, I heard the answer.

Q. Where did that answer come from?

A. Come from the engine room.

Q. How was the answer made—you say you heart it?

A. The engine-room telegraph rings a bell when the engine is reversed, throws it from one side to the other.

Q. Rings a bell where?

A. In the pilot-house.

Q. Did you hear that bell ring?

A. Yes, sir, I heard it ring.

Q. When you changed that course a half point, as you

have stated, do you know whether any signals were given by the master to the engine room?

A. Yes, a signal was given.

Q. What signal was given?

A. They were given on the telegraph for half speed.

Q. Do you know whether there was a reply to that?

A. Yes, there was a reply.

Q. The same as the other?

A. Yes.

Q. Did you hear it?

A. Yes, I heard it.

Q. Did you see the hand move?

A. Yes, I saw by the dial that we were going on half speed.

Q. In your estimation what did you estimate at that time the speed of the vessel was under half speed?

A. About 5 knots.

THE COURT: Five knots?

THE WITNESS: Yes, 5 nautical miles an hour.

Q. Now, go ahead. You got up to the point where you sighted a small island about a half a mile ahead.

A. I was looking out of the starboard window at that time and Johnson was at the port window, and I called his attention to it and said: "Frank, there is a small island ahead of us." He said, "Yes, I see it—don't you think we had better haul out?" and he told them to port two points.

Q. Who told them?

A. He told the man at the wheel, which would make the course N. N. W.

Q. How many degrees in a point?

A. Eleven and one-quarter.

Q. Do you know whether or not the helm was ported two points at that time?

A. Oh, yes, the helm was ported.

Q. Was there any excitement at that time?

A. No, not any excitement at that time.

Q. All right, go ahead.

A. And a few minutes after that I heard the towing machine—I guess we both heard it—I heard the towing machine running away, and I put my head in the window and said: "Frank, there is something wrong back there; I think our tow is broken, and you better go and have a look."

Q. Who is Frank?

A. Captain Johnson. Prior to that time the mate had gone to the towing machine.

Q. Who ordered the mate to stand by the towing machine?

A. I think I give the order to the mate myself; I asked Johnson if he didn't think it would be well to have Mr. Dawe stand by the machine to see that it was working all right and he said he thought it would be, and I passed the word for Mr. Dawe to go to the towing machine.

Q. How long was that before the shackle broke?

A. It must have been a good half hour, maybe a little more than that; of course, at that time I was not marking the time down, or the courses, or anything else; I was keeping a good lookout and I didn't make any note of the time or anything like that—after that when the shackle broke—we didn't know the shackle broke, but we knew that something carried away, and Johnson went out on the top deck and I presume he was talking to Dawe—

MR. GORHAM: Unless you know, don't testify.

THE WITNESS: I wasn't with him.

Q. Did you know what he went out for?

A. Oh, yes.

Q. What did he go out for?

A. He went out to find out for certain whether it was broke away, but I didn't go with him; after while, when I thought it was time enough to have the line hauled in, I left the pilot house a few minutes and went back to Captain Johnson; he was standing on the top deck immediately over the towing machine and I asked him what was wrong and he said something broke, but he didn't know what yet; the end of the line wasn't hauled in yet, and when the end of the line came in over the rail Mr. Dawe called up and said, "our line is intact; some of the gear of the barge is broken;" and after that I went back into the wheel house again, and Johnson, a minute or so after, came into the wheel house with me, and we turned the boat around—made a turn around to go back and try to pick up the barge. At that time I see the barge, and of course all of that time she would be drifting; we come over close to the barge, as near as we dare go—I should judge we were probably four or five ship lengths, or three or four ship lengths—something like that.

Q. That is after you turned around?

A. That is after we turned around.

Q. Now, will you illustrate that to the Court?

MR. GORHAM: Can't you put that on paper, because there will be no record of it unless you do?

THE WITNESS: I will put it on paper after while, but I can make myself very plain this way. We will say this way

the small island, and this is Mary Island—there is kind of a bight here. At the time we saw the island we were steering N. W. and had the island right ahead. We were coming down here from here, and we ported 2 points, enough to clear here.

Q. That is when you were half a mile away from the small island?

A. We estimated half a mile from the small island. We came along here and she had broke away and drifted and went up by the side of the little island. I would like to explain in the first place that when we were steering N. W. we had the wind at a point on our starboard quarter, and when we came to the course again that would bring the wind about three points on the quarter, and when we found we had broken away from the barge we rounded her up a little more—we couldn't stop her because if we had stopped in the position we were in at that time there was danger of getting the towing hawser around the propeller. Of course, in the meantime, the barge would drift with the wind on the starboard quarter and she would lose her headway and blow sideways. We turned around and looked for the barge—we turned with the helm ported this way, and of course the barge was drifting down here all the time.

Q. Down where?

A. Down towards the island here, and if she got very close of course she was going to drift on the island. We came around here, to try to get a line to the barge, and if possible pick her up; I was watching the tug and barge closer than I was the land, and we come just about running on top of the island.

Q. With the tug?

A. With the tug; we were both of us more or less watching the boats closer than we were watching the land; I am not sure whether I saw the island before Johnson did, but Frank said "there is the island, by God, we are going to bank up;" and I said, "Frank, for God's sake don't bank her; if you port her hard over she will clear that with full speed ahead;" so we put the helm hard over, and I presume that is the time that the quartermaster blamed me for taking the wheel away from him, which I did.

Q. Had you taken the wheel away from him at any time before that time?

A. No, sir; I had not; he was slow and I had to take the wheel.

Q. What did you say to him?

A. I am not sure—I told him he was a darned fool, and was too slow, and I asked him if he wanted me to lose the tug along with the barge; the wheel on the Commodore is a

6-foot wheel and it takes six turns from hardover to hard-over,—a couple of spokes on this 6 foot wheel hasn't any effect on the boat at all, and therefore in a case of that kind there has to be pretty quick action. We ported the helm hard over and just got clear of the island. We could feel ourselves in the surf. After clearing the island the barge kept drifting, and that island shut out the barge from our vision over here. We made a second turn and came back over here, and by that time the barge was around here, and we had the barge opposite on the lea side of the island. We went over as close to the island as we dared go; there was a surf breaking here, and the barge was not in a position where we were able to get to her that night.

Q. Then what did you do?

A. We hung off here, keeping this island in sight, until daylight, to see whether the barge would float or not, and in fact I was scared all the time that the crew had been lost with the barge.

MR. GORHAM: Now, we would request, if the Court please, at this time that the witness make a diagram showing the island, Mary Island, and the little island, and the relative positions of these two vessels to themselves and to the little island at each of the particular points he has described, so that the matter may get into the record. So far as the record is concerned, it does not show what he has been testifying to.

THE WITNESS: I can do that easily enough.

MR. GORHAM: We ask to have that done.

THE WITNESS: All right.

Q. (By Mr. Stratton): You can do it at noon. Has the Commodore any towing apparatus aboard?

A. Yes, they have got an automatic towing machine.

Q. Who supervised putting the towing machine aboard?

A. I was there putting it aboard, along with the chief engineer at that time, Mr. McGuire.

Q. What is the character of that towing machine?

A. It is an automatic device to equalize the strain of the tow line—to take up jerks and pays out line when there is a strain, and take in again the slack. It is set automatically with a steam cushion.

Q. What can you say with reference to the quality of that machine?

MR. GORHAM: I don't think this witness has testified as to his qualifications respecting machinery.

THE WITNESS: I can give you the make of the machine, of course.

THE COURT: I think he ought to be asked what he knows about such machines—that some foundation should be laid for him to answer.

Q. (By Mr. Stratton): Do you know the quality of that towing machine as compared with others?

A. Yes, sir.

MR. GORHAM: We object to that still as incompetent; he is a hull builder and not a machinist.

Q. (By Mr. Stratton): What experience had you had with towing machines prior to the time you put this one on the Commodore?

A. I have had no personal experience at all; I have seen them in operation on many occasions, but I never had any experience myself.

Q. Do you know what the price of this machine was compared with the price of other towing machines?

MR. GORHAM: We object to that, if the Court please.

MR. STRATTON: The price indicates the quality. We want to show they bought the best towing machine they could get in the market for money.

THE COURT: I think you may show that.

THE WITNESS: The price of the machine was $4800.00 landed in Vancouver on our tug.

Q. How did that compare with the price of other towing machines?

MR. GORHAM: We object to that—he has not shown that he knows anything about the market price on these machines. He may know what this one cost, as port captain.

THE COURT: If he knows he may testify—if he knows anything about what they cost.

MR. GORHAM: From your personal knowledge, not hearsay.

THE COURT: Have you ever priced any other machines or bought any other machines?

THE WITNESS: Yes, I have priced other machines and had estimates made.

THE COURT: At or about the time this was bought?

THE WITNESS: At a little later time than that.

THE COURT: New machines from dealers—

THE WITNESS: The machines we have were made by the—

THE COURT: No, you say you have priced other machines. Were they from dealers—well-known dealers?

THE WITNESS: Yes.

THE COURT: I think the witness may testify.

THE WITNESS: Our machine is an American machine made at Rhode Island by the American Windlass Company.

Q. (By Mr. Stratton): And the price of that machine laid down was how much?

A. Laid down in Vancouver on our tug was $4800.00 without installation. Now, the same machine not any more than four months ago—

MR. GORHAM: Wait a minute—unless it is shown that there has been an increase in price he cannot go on and testify.

THE COURT: Ask another question—he has answered that question.

Q. The question was, how did that compare in price with the price of other machines last March?

A. Last March that particular machine had risen in price; and at the same time a different make of machine—a Canadian machine—made of the same size, the same size cylinders and made for the same size line, we were quoted at $2250 f. o. b. the Sound.

Q. Did you make an investigation at that time to find out the prices of different machines from the dealers?

A. Not any of that kind; we got the best there was on the market.

Q. How do you know you got the best there was on the market?

A. Because we got the most expensive machine made, and they are the original makers of that machine, and are said to have the best name for making towing machines.

Q. Had you observed the working of that machine prior to the time it was put on the Commodore until after this accident?

A. Yes, sir.

Q. Do you know whether there were any defects in it or not?

A. There was no defect in it.

Q. What experience have you had in operating towing machines, Captain?

Q. I will ask you whether or not when the tug made the turn there would be a slacking up of the tow line?

A. There would be for, I cannot exactly guess the time—there would be a bight—the hawser or tow line would be hanging in the water.

Q. What, if any, effect does the bight in the tow line if it hangs in the water have on steadying the strain on the shackle of the barge?

A. Well, it takes some strain off.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. You were on the barge Elmira when you were being towed by a tug with a towing machine?

A. Yes, sir.

Q. You did not examine the towing machine yourself, did you?

A. No, sir, not when I was on the barge—I couldn't very well.

Q. You are not a marine engineer?

A. No, sir, I am just a mariner.

Q. Do you pretend to have any knowledge of mechanics at all?

A. I am not totally ignorant.

Q. Of mechanics?

A. Of mechanics.

Q. You do not know what the construction of a towing machine is except as you have observed it take in the slack and pay out the line—is that all?

A. In a heavy sea-way.

Q. When there is a little slack it takes it in?

A. Yes, sir.

Q. And it lets it out—

A. Yes.

Q. And that is all you know about a towing machine?

A. That is all.

Q. You do not know how much it can take in, or how it is set, or how it is operated?

A. No, I wouldn't swear to that.

Q. What department of mechanics have you studied?

A. I haven't made it a study, but experience and neces sity—

Q. Experience in what?

A. In machinery.

Q. You are a machinist, are you?

A. No, I don't put myself up to be, but I have had a little experience in it so I can do my own jobs.

Q. On your own steamer?

A. On my own boat.

Q. What is the size of your boat?

A. My boat at the present time is 35 feet.

Q. Gasoline boat?

A. Yes.

Q. You have had no personal experience with towing machines at all?

A. Oh, no, I never handled any—never took them to pieces or put them together, no, sir.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. I will ask you this—when you were on the barge there what was the duty of the barge with reference to following the light of the tug?

A. Even when I was an ordinary sailor, or any ordinary sailor will know that much, when he steers on a tow that his place is to keep the tow over a little bit, either a half point or so on the port or starboard of the tug in the day-time, or at night on the steering light. Follow the light at night time and follow the boat in the day time.

Q. Follow the light of the tug?

A. Yes, sir.

Q. At night?

A. Yes, sir.

Q. And follow the tug in the day time?

A. Yes, sir.

Q. Is that with or without any signals from the tug?

A. Without any signals.

MR. STRATTON: That is all.

QUESTIONS BY THE COURT:

Q. I would like to ask you some questions. Does it sometimes happen that the man on the barge cannot see any light at all on the tug, or cannot see the tug,—the fog gets so thick sometimes, and the snow gets so thick, that he can not see the tug from the barge in the day time, or cannot see the light in the night time,—does it sometimes get as thick as that?

A. Yes, sir.

Q. Now, when that condition prevails how does the man

on the barge know how to steer the barge in case the tug makes a sudden turn?

A. With that condition and that kind of weather prevailing, it being that condition of weather as you described, first the tow boat slows down, then shortens the hawser—hauls in the hawser within reasonable distance of its tow; and furthermore, continuous blowing of her fog whistle—fog signals. Most of the time, unless it is very thick, you can always see the outline of your tug ahead. She will be close enough by the time she has shortened her hawser and slackened her speed so that you can hear her fog whistle or see the outline of the boat herself, and get under a very slow speed. Another thing, a man that knows anything about the boat ahead can follow the tow line—it is never so thick but he cannot see the tow line.

Q. But in a very thick fog he cannot see much of his tow line.

A. Then you would stop altogether and lay by until it clears off. You hear of it over and over again in these channels here when the fog is very heavy.

Q. Is there among steamboat men in general a known signal that a tug makes to a barge when the tug wants the barge to port the helm?

A. I have never heard of it, your Honor, in my time. It is 15 years since I have been last working for the tow boat company, and I have ever since been on passenger boats.

Q. And you never heard of any such signal up to the time you quit the tug boat company?

A. No, sir.

Q. And that was 15 years ago?

A. Yes, sir. There might be such a thing as an understanding between two masters, but being compelled by the Government or by the local inspectors I never heard of it.

THE COURT: That is all.

QUESTIONS BY MR. STRATTON:

Q. In a thick fog or a snowfall such as his Honor has mentioned, when it would be impossible for the man on the barge to see the tug, what would be the duty of the man on the barge in reference to going up on to the forecastle head?

A. They would have a look-out and have a fog horn there.

Q. Do you know whether or not the position of the tug ahead can be observed by looking at the tow line off the stem of the barge?

A. I just mentioned that to his Honor, that we had th tow line to go by when everything else failed.

Q. Can a man on the barge observe, by looking over th bow of the boat and looking at the tow line, can he alway see enough of it to enable him to properly steer his barge

A. He can do so—be a little slow, but it can be done we done it.

MR. STRATTON: That is all.

(WITNESS EXCUSED.)

MR. STRATTON: We will now read the depositions of Captain Olson and Captain Snoddy.

(Whereupon said depositions were read into the record and thereafter court adjourned until Monday morning at 10 o'clock A. M.)

MORNING SESSION,

NOVEMBER 12, 1917, 10 A. M.

CAPTAIN ANTONE C. BJERRE: Recalled as a witness on behalf of the Claimant, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. Where do you reside, Captain?

A. Vancouver, B. C.

Q. How long have you lived in Vancouver?

A. Oh, I have had my home in Vancouver more or less since 1882.

Q. What is your business?

A. Master mariner.

Q. How long have you been a master mariner?

A. Since 1889 or '90.

Q. What character of vessels do your papers allow you to navigate?

A. Schooners, steamers, and sailing vessels.

Q. Ocean going?

A. Ocean coasting trade.

Q. What experience did you have on the sea prior to getting master's papers?

A. Well, all kinds of experience; I have been working on the sea ever since I was about 16—on square rigged vessels and all kinds of ships.

Q. Have you had any experience in the waters or southeastern Alaska, which would include Revillagigedo Channel?

A. Yes, sir.

Q. State to the Court what experience you have had.

A. I have been running tugs up here, towing barges with them; in fact, all of my towing up here has been towing barges.

Q. Are you acquainted with the barge Bangor?

A. Yes, sir.

Q. Have you towed vessels up through here of the size and character of the Bangor?

A. Larger than her, yes.

Q. And smaller?

A. No, not any smaller.

Q. What has been your position on the tugs that you have navigated up through Revillagigedo Channel?

A. Master mostly; I have made several trips also with our own tugs similar to that, and in each case I was acting as assistant to the captain and pilot.

Q. How many trips on a tug have you made through Revillagigedo Channel—I mean round trips, approximately?

A. I would not be very positive—probably between 20 and 25.

Q. Since when did you make those trips?

A. I think I made my first trip through as master of a tug with a tow in 1914.

Q. Are you employed by the Claimant in this case, The British Columbia Mills Tug & Barge Co., Ltd.?

A. I am shore captain for that company.

Q. At the present time?

A. At the present time.

Q. Who, if you know, supervised the construction of the tug Commodore?

A. I did.

Q. What, if anything, did you have to do in figuring the cost of the Commodore?

A. I went over all the accounts for it, and the different materials, and so forth, you know, and labor.

Q. Have you supervised the construction of any other vessels?

A. Yes, sir, I supervised the construction of the Haro.

Q. What is the Haro?

A. The Haro is a tug-boat belonging to the B. C. Mills Co.

Q. How much smaller is the Haro in length than the Commodore?

A. I don't remember her exact tonnage now.

Q. I mean in length?

A. I think the Haro is about 15 feet shorter than the Commodore, somewhere around there.

Q. How do the Commodore and the Haro differ in construction?

A. They are almost exact duplicates.

Q. Models the same?

A. There is a little difference in the bottoms, but on deck and top construction they are almost identically the same, only the Haro is a little smaller.

Q. What other vessels have you supervised the construction of?

A. I supervised the rebuilding of the Acme for the same company.

Q. What is that, a tug-boat?

A. A tug-boat; I have supervised the construction of the three-masted schooner Queen City and sailed her afterwards; I supervised the construction of the schooner Beatrice and sailed her afterwards.

Q. In the supervision of the construction of those vessels state whether or not you ascertained the cost?

A. Yes, I did.

Q. What other experience have you had that would enable you to form a correct opinion of the value of vessels?

A. Well, I have been examining different vessels for our company with the intention of going into the cost, construction, going into the depreciation of different ships, and so forth, as to the value at the time—mostly ocean going ships—not barges—wooden vessels.

Q. What is the barge Bangor—isn't that a wooden vessel merely cut down?

A. Yes, she is a wooden vessel.

Q. State whether or not during the past few years in your position and business you have made full investigations and kept up with the cost of vessels and their increase in value, and so forth, along the Pacific Coast?

A. I keep myself pretty well informed, yes.

Q. Are you able to form a fairly accurate opinion of the value of vessels?

A. Pretty fair.

Q. Vessels such as the Bangor?

A. Yes, sir.

Q. Were you on the trip of the Commodore last March when she towed the Bangor?

A. Yes, sir, I was aboard of her.

Q. Had you examined the Bangor and did you know her condition at that time when the trip was started?

A. Before we sailed on the trip?

Q. Yes.

A. I was aboard the Bangor, but I never examined her, no, sir; no, sir, I didn't examine her.

Q. Did you give her an examination later on?

A. I was aboard of the vessel, of course, when she was stranded down at Mary Island, and aboard her again at Ketchikan, and aboard of her at Anchorage.

Q. Been all over the vessel, have you?

A. I have been pretty much over her, yes.

Q. What, in your opinion, was the fair and reasonable market value of the Bangor on the 26th day of last March?

A. Previous to her stranding?

Q. Yes.

A. I would estimate the Bangor's value at that time at $10,000.00—a fair estimate.

Q. Did you make the trip on the Commodore—the trip this accident occurred?

A. Yes, sir, I made the trip.

Q. How did you ship on the boat?

A. I believe I was signed on as purser; I am not very positive—I was acting as pilot.

Q. Were you in the pilot-house on the night of the 25th of March?

A. Yes, sir, I was in the pilot-house.

Q. What time did you go into the pilot-house that night?

A. Well, I would not like to state the exact time; I was in and out of the pilot-house during the first part of the evening, and sometime previous to getting to Tree Point, I was in the pilot-house from then on continuously.

Q. Until what time?

A. Until it anchored the next morning.

Q. Were you at any time out of the pilot-house between the time you went into the pilot-house before you reached Tree Point and the time the shackle broke?

A. No, sir, I was not out of the pilot-house between that time.

Q. Do you know where Captain Johnson was between the time immediately before you reached Tree Point and the time the shackle broke?

A. Where he was?

Q. Yes, do you know where Captain Johnson was all that time?

A. Captain Johnson was in the wheel-house.

Q. Did Captain Johnson at any time go out to set the towing machine in action?

A. Yes, sir.

MR. GORHAM: I think that is leading the witness, if the Court please.

THE COURT: Yes, it is quite leading.

Q. I will ask you this—do you know whether or not Captain Johnson was out of the pilot-house that night for any purpose?

A. Oh, he went out to set the towing machine in action.

Q. About what time was that?

A. I would not be very positive about the time at all.

Q. Was it before 1 o'clock or after 1 o'clock?

A. Oh, it was before 12.

Q. Now, who was the helmsman that night after 12 o'clock?

A. After 12 o'clock? The gentleman down here, I forget his name.

Q. Mr. Croft?

A. Yes.

Q. Now, you may state to the Court in your own language what took place on the tug Commodore from the time you went into the pilot-house shortly before you reached Tree Point at 11:19 that night.

A. What took place from that time on?

Q. From that time until 7 o'clock the next morning, the time you anchored.

A. In the first place I went into the wheelhouse somewhere the other side of,—I don't exactly remember the time, but it was prior to getting to Tree Point; snow squalls hit us down there and I was helping Johnson then keeping a lookout towards the Mary Island light—we saw the light—

Q. The Mary Island light?

A. No, I mean Tree Point; we saw Tree Point when abeam—saw it through the snow and the dirt there—just a few glimpses of it—we saw it there plain enough to know it was Tree Point light, but it was visible only for a very, very short time—it might have been three glimpses or it might have been a couple of glimpses of it—enough to know it was Tree Point light, but the weather was so thick, you see, we wouldn't get anything from it. Going by a light like that, if possible I generally take an angle off the light to determine the distance we are off. There was a machine in the wheelhouse for that purpose, but that night the light was not visible very far through the mist and I did not use it at all,—we could not use it, and no angle could be determined because we could not get the cross bearings off the light—we couldn't see the light long enough to get a cross bearing—we would get a glimpse of it, but it was not long enough ot get a bearing off of it; so I asked the mate the distance that we were off the light, and he said between a half and three-quarters of a mile, or possibly a mile, and we set our

A. I operated that one.

(WITNESS TEMPORARILY WITHDRAWN.)

(Whereupon a recess was taken until 7 o'clock P. M.)

EVENING SESSION,

NOVEMBER 12, 1917, 7 o'clock P. M.

H. R. SMITH: Upon being recalled as a witness on behalf of the claimant, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. What are your initials, Captain?
A. H. R.
Q. You have already been sworn?
A. Yes, sir.
Q. And have testified?
A. Yes, sir.
Q. Are you acquainted with the tug Commodore?
A. Yes, sir, slightly.
Q. Do you know the location of her pilot house?
A. Yes, sir.
Q. I will ask you where, in your opinion, would be the proper place to keep a look-out on that tug?

MR. GORHAM: We object to that as immaterial, what this witness thinks about it. The Supreme Court of the United States has laid down the rule where the look-out belongs, and they have laid down the rule that the look-out does not belong in the pilot house.

THE COURT: That may be true, but that is a matter of law, and if the law is as you say it would not make any difference what this witness says; and if the law is not that way it might be material, but I think the question ought to be where was the proper place for a look-out at that time and under those circumstances.

Q. Captain, assuming that the tug Commodore had in tow the Bangor loaded with a thousand tons of cargo, and she was proceeding in the night time from Tree Point with a view of picking up Mary Island light, that there was a fresh wind at Tree Point from the southeast and that grad-

ually increased to 20 or 30 miles an hour by 1:45 A. M. on the 26th of March, and that Tree Point was passed at 11:10 P. M., on the 25th of March; that the hawser was 180 fathoms in length; that there were frequent snow squalls, it was raining, some sleet, the weather was dirty, tide flooding, where, in your opinion, would be the proper position for the look-out on that tug to be stationed under those conditions, on the tug Commodore?

MR. GORHAM: The same objection.

THE COURT: The general objection is overruled.

MR. GORHAM: I take an exception.

A. Well, my experience in tow-boating and steam-boating in general, on a tow-boat especially of that kind, in the pilot house.

Q. Assuming that the pilot house on the Commodore was 35 or 40 feet back from the stem, would your opinion be the same?

A. Yes, sir.

Q. Do you know where it is customary on tug boats to have the look-out stationed in Southeastern Alaskan waters, including Revillagigedo Channel?

A. On tow boats?

Q. Yes.

A. The commanding officer at the time—the watch officer—captain, pilot or mate—he is the man that takes charge of the look-out in general.

Q. I say do you know where it is usual and customary—

A. In the pilot house.

Q. What is your reason for stating that the pilot house is the proper place for the look-out on a tug?

A. Well, the range and the height; the pilot house is much higher and gives a better and clearer observation.

Q. How about sound?

A. I have found out you can hear much more by listening inside of the pilot house than a man can hear, even on big boats, standing on the bow of a vessel.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. How many times have you been aboard the Commodore?

A. Between four and five times—when she was in here last spring.

Q. Last spring?

A. Yes, sir.

Q. Are those the only times you have been aboard of her?

A. Yes, sir.

Q. Did you measure the distance from her pilot house window to the stem?

A. I haven't measured with rules, or anything of that kind, but I took particular notice of the approximate distance.

Q. Why did you take particular notice at that time?

A. Because she was the boat of an old ship-mate of mine —a particular friend, and it was the first time I saw that boat.

Q. You are referring to Captain Bjerre?

A. Captain Bjerre, yes, sir.

Q. Was she light or loaded when she was here,—loaded with coal, I mean?

A. When I was on board she was light; about half empty.

Q. About how much coal was in her bunkers?

A. That I couldn't tell you.

Q. How can you determine that she was about half empty?

A. Because she was up in the water.

Q. How much of a sheer is there in that vessel from her waist forward?

A. I didn't pay no particular attention to that; I just went on board of her on the upper deck.

Q. And you don't know how much she would sheer?

A. No, I didn't pay no attention to that.

Q. How high is the highest part of her stem out of the water when she is half loaded, as you say, or when she is light?

A. Somewheres about 20 feet.

Q. From the water line to the top of her stem?

A. Yes.

Q. When she is light?

A. Yes; that is approximate.

Q. I mean approximately. Now, when she is loaded what is the distance?

A. I have never seen her loaded.

Q. So you don't know how deep she would lie in the water forward?

A. No.

Q. Nor how deep she is forward?

A. No.

Q. Now, on her deck, besides the pilot house, what obstructions are there?

A. There is a hatch there.

Q. How far is the aft end of the hatch from the forward end of the pilot house—forward partition on the deck?

A. That I couldn't tell.

Q. What is the length of the hatch fore and aft?

A. That I couldn't tell.

Q. And what obstruction is there between the forward end of the hatch and the stem?

A. I think there is a booby hatch that runs down into the forecastle, and then there is the steam winch.

Q. How far is it from the forward end of the hatch to the aft end of the booby hatch?

A. That I couldn't tell.

Q. What is the length of the booby hatch fore and aft?

A. I couldn't tell.

Q. When is the distance between the forward end of the booby hatch and the steam winch?

A. That I couldn't tell.

Q. How much space does the steam winch take up fore and aft on that deck?

A. 4 or 5 feet—5 feet.

Q. You think that much?

A. Yes.

Q. What is there forward of the steam winch—between that and the stem?

A. There is nothing there but a chain and hawse pipes.

Q. How much space is there?

A. There isn't much space there.

Q. How much?

A. I didn't measure that space, but when I looked down on the deck it was rather close up to the hawse pipe.

Q. Is there a davit there, forward?

A. I think there is—there ought to be.

Q. And there is a guiding stay leading up to the mast?

A. Yes.

Q. How many guiding stays are there?

A. That I couldn't say.

Q. And how is the davit set there?

A. If I said anything I would be only surmising.

Q. So you don't know much about it at all, do you?

A. Not about these particular items.

Q. Now, you say you can hear better up in the pilot house than you can on the stem of the vessel?

A. At any time.

Q. What can you hear, whistles of passing steamers?

A. Whistles of passing steamers and anything.

Q. Do you mean to say that if you were in the pilot-house,— How high is it above the water?

A. The pilot house?

Q. The floor of the pilot house as you saw her, light?

A. 40 feet.

Q. 40 feet?

A. Somewheres around there.

Q. Do you mean to say that a man standing at the window of the pilot house that is, you say, at least 40 feet above the sea, or the water line, could hear the sound of breakers on the shore, in a gale, quicker than a man standing in the stem of the vessel?

A. With the windows open, yes, sir.

Q. You think he could?

A. Yes, sir.

Q. Did you ever try to contrast the two places for hearing purposes?

A. Yes.

Q. You have?

A. Yes.

Q. Under similar conditions?

A. Almost.

Q. State the conditions and let us see if they are almost.

A. When I was pilot on the steamer Bertha we were befogged in Johnstone Straits—very thick; we felt our way by our fog whistle, and I think it was in the vicinity of Sunderland Island that we got an echo. I was in the pilot house with the captain, and at the same time we had two men on the look-out. At that time it was calm, when the captain said to me, "Listen, I think I hear breakers; we must be close to the cove;" and sure enough I heard the water washing forward, and in half a minute afterwards up came the cliff of a small island,—that was in Beaver Passage.

Q. Were you on the Bertha when she went ashore at Fitzhugh Sound?

A. Yes, sir.

Q. What officer were you?

A. I was pilot then.

Q. What is the width of that channel,—approximately, I mean?

A. 5 miles.

Q. More than that, isn't it?

A. Maybe.

Q. She went ashore in broad daylight, didn't she?

A. No, sir.

Q. On a clear day?

A. No, sir.

Q. What time of day did she go ashore?

A. About half past one—after midnight.

Q. Captain Beleen on the bridge, or were you on the bridge?

A. I wasn't on the bridge; it was my watch, though.

Q. You mean to say that you think a man in a pilot house can hear breakers ahead better,—in the pilot house of the Commodore, at the window, than a man at the stem of the vessel?

A. Yes, sir.

Q. How about small vessels deeply laden? Would a man be able to pick up sounds quicker at the stem than a man in the pilot house?

A. A man in the pilot house would be able to pick them up quicker than a man in the pilot house.

Q. A man, on a small vessel, would be able to pick up sounds quicker in the pilot house than a man at the stem?

A. Yes, because the wash of the vessel going through the water would disturb the man's hearing.

Q. How about his eye sight?

A. His eye sight would be better, the man in the pilot house. The man at the stem, he wouldn't have the same range as the man in the pilot house above him.

Q. But if an object could be seen just 50 feet ahead of the stem, a man on a sharp look out on the stem of the vessel would see it quicker than a man up in the pilot house, wouldn't he?

A. The pilot house is above the range—

Q. No, answer my question. If on a dark night—a snowy night an object could be seen just 50 feet ahead of the stem of the vessel, just coming into view, then when the vessel was 50 feet away from it the man at the stem would see it before the man in the pilot house, wouldn't he?

A. No, sir.

Q. If it could only be seen 50 feet away who would see it first, the man at the stem or the man in the pilot house?

A. The man that is 40 feet above the look-out.

Q. But if it is 50 feet away and cannot be seen beyond that, then it would have to be within 10 feet of the stem before the man in the pilot house saw it, wouldn't it?

A. No.

Q. It cannot be seen until it is within 50 feet of the stem of the vessel—that would be 50 feet from the man at the stem, and 90 feet from the man in the pilot house, wouldn't it?

A. Yes, sir.

Q. Would the man in the stem see it if it was just 50 feet away?

A. Oh, yes, he would see it.

Q. And if it wasn't visible more than 50 feet away would the man in the pilot house see it when it is 50 feet from the stem?

A. Yes, sir.

Q. When it is 90 feet from the man?

A. It is not 90 feet; it is at an angle.

Q. I am telling you the object we are speaking of now is only visible 50 feet away, and when the stem of the vessel is within 50 feet of that obstruction it is visible and not until then,—the man at the stem of the vessel can see it, can't he?

A. If he is there, yes.

Q. The man in the pilot house then at that moment is 90 feet from it, isn't he,—is that right? He is 40 feet farther aft, isn't he?

A. Yes, he is 40 feet farther aft, but it makes an angle, it being some feet above it.

Q. Does he get any nearer?

A. No nearer, but he has a better view of it.

Q. But if it is not visible more than 50 feet away he would not see it, would he?

A. Certainly he would if he had his eyes open.

Q. If it is not visible more than 50 feet away, then he could see it at 90 feet?

A. Yes.

Q. Now, you say it is customary for tug boats in Southeastern Alaska to carry their pilots in the pilot house, do you?

A. If they have any pilots, yes, sir.

Q. I mean a look-out?

A. Yes.

Q. It is customary to carry their look-outs in the pilot house?

A. Yes, sir.

Q. Who is the look-out?

A. The officer in command.

Q. The officer in command?

A. At the time.

Q. And he is the look-out,—he is the bridge officer and the look-out?

A. Yes, sir.

Q. Discharging both duties?

A. Yes, sir.

Q. Do you mean to say that that is the custom?

A. That has been the custom ever since I have been going to sea in Alaska—small tow boats.

Q. Now, do you know Captain Thor Nielsen, for many years a pilot?

A. No.
Q. Whose deposition has been read?
A. No.
Q. You don't know him?
A. Don't know him.
Q. And if he should testify that under the conditions which have been stated to you, among other precautions he would put a look-out on the forecastlehead, would he be carrying out a custom of tug boats in these waters, or otherwise?
A. Well, that is up to the captain. If he done that I suppose he done right according to his own judgment.
Q. Do you know Captain Snoddy?
A. No, sir.
Q. Employed by the Griffiths firm?
A. No, sir.
Q. And if he testified that it was good seamanship to put a man on the look-out in thick weather on the stem of the vessel, would he be testifying correctly as to custom?
A. He would have done right.
Q. Would he be testifying correctly as to custom on tugs in these waters?
A. Well, that might be in his time, but in my time they didn't.
Q. If he testified that during these times, these present times,—you haven't been sailing on tugs for some years, have you?
A. No, sir; that is what I mentioned.
Q. And you don't know what the custom is now, do you?
A. No, sir, I don't.
Q. And if Captain Snoddy says that a man in the wheel house has a better point of observation when the wheel house is only 30 feet from the stem, but that that isn't the fact when it is in excess of 30 feet of the stem, what do you think of his judgment?
A. That stands to reason,—the closer you get to the stem—
Q. The better you can see?
A. The better you might be able to see, yes.
Q. Do you know how far the stem is on the Commodore from the pilot house?
A. As near as I could guess I think about 35 to 40 feet.
Q. Did you go aboard the Haro?
A. No, sir.
Q. Do you know how far her pilot house is from the stem?
A. No, sir.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

CAPTAIN ANTONE J. BJERRE: Upon being recalled for further examination, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION (Cont'd.)

BY MR. STRATTON:

Q. How long before the shackle broke was it that the tug changed her course 2 points to the north?

A. It would only be a few minutes.

Q. How far, in your opinion, did the tug run after the course was changed 2 points to the north before the shackle broke?

A. She may have run about half a mile—I don't hardly think she did.

Q. You don't think she ran half a mile?

A. No.

Q. How much less than half a mile would you say? I want your judgment on it.

A. Between a quarter and a half a mile—in the neighborhood of half a mile; I am not very sure as to the time we were running on that course before it broke; it was just a few minutes—it wasn't a very long time.

Q. Did you know when the shackle broke in reference to the time you changed your course 2 points?

A. Oh, yes, I am pretty sure I know that.

Q. How did you know when the shackle broke?

A. I heard the towing machine start to run away.

Q. What does the towing machine do when the shackle breaks or the strain is lifted off the hawser?

A. It may depend quite a bit on how the machine is at the time the strain is on her.

Q. I mean that machine on this occasion?

A. At the time it run away pretty fast, and therefore the lever must have been a little ways back. If the machine had been set in working previously the lever would be up and down and it wouldn't run very fast; and that time it run pretty fast and therefore I imagine the lever must have been pretty well back. The machine would not act exactly the same in taking in a slack at different points of the lever.

Q. How did you know from the sound of the towing machine that something had broken away?

A. Taking in the slack—taking in the tow-line.

Q. State whether or not you were familiar with the sound of the towing machine when it was operating and taking in a slack and when it was not?

A. I was very familiar with it.

Q. There is a different sound when the slack is being taken in rapidly than when it is not?

A. Oh, yes, quite a little difference.

Q. Where were you when the hawser broke?

A. I was in the pilot-house.

THE COURT: When the hawser broke, or the shackle?

THE WITNESS: She was broke adrift.

Q. It was the shackle. The hawser did not break. How are the windows in the pilot-house of the Commodore?

A. They come way around—come pretty near around in a half circle; they come all the way from the door around to the front of the pilot-house.

Q. Are there windows on the side of the pilot-house?

A. One window on each side.

Q. And were those windows on the side open or closed?

A. Open.

Q. All the time?

A. Yes, sir.

Q. From the time you left Tree Point?

A. Yes, sir.

Q. Where were you with reference to those windows?

A. I was on the starboard side.

Q. Were you inside the pilot-house or outside?

A. Yes, I was inside.

Q. Were you all inside?

A. There were three of us inside.

MR. GORHAM: I would not lead him that way.

THE WITNESS: I was hanging out the window of course.

Q. Do you know what the custom in Southeastern Alaskan waters was last March and prior thereto in reference to a tug giving any signal to a barge in tow when the tug was about to change its course?

A. Yes, sir, I know what the custom was.

Q. What was it?

A. I know we never gave any signals, and I never knew of anybody that did.

MR. GORHAM: We move to strike that as not responsive to the question. He is asked what the custom was—that is not the way to prove custom.

THE COURT: I think that that is pretty nearly saying that there was not any such custom; if a man didn't know of it, and doesn't know of anybody who ever did use signals, that is very nearly equivalent to saying that he does not know of any such custom.

MR. GORHAM: He was not asked what the custom was. It is equivalent to saying that he doesn't know whether there is such a custom or not, that is all.

THE COURT: You had better bring it out, Mr. Stratton.

Q. Do you know what the custom was in the matter I have just asked you about?

A. With regard to blowing port and starboard whistles?

Q. Yes.

A. Yes, I know the custom.

Q. What was the custom?

A. There was no such custom.

Q. Do you know whether or not there are any particular exceptions to that custom?

A. It depends on the boat—there might be in cases where a freight boat is towing a heavy boat between the captain of the ship and the captain of the tow different signals before the vessel is started—they may have prearranged signals before they leave on the voyage—I don't know anything about that—I am speaking of a tug boat.

Q. Do you know of any signal cards that are used by any particular firms on their barges or tow boats?

A. Yes, sir, I do.

Q. Name one.

A. Captain Griffiths has his, and we have ours, and I believe the Puget Sound has theirs.

MR. GORHAM: The Puget Sound what?

A. Tugboat Company have their own signal card.

Q. State whether or not you have got any signals for porting or starboarding?

A. Are you speaking about the Company's signal card?

Q. Yes.

A. No, sir, we don't.

Q. Did the Commodore, on the occasion of this accident, have on board one of the Griffiths' signal cards?

A. Yes, sir.

Q. And did the Bangor?

A. The Bangor, too, yes.

Q. Do you know how the Bangor happened to have one of those cards?

A. The Bangor used to belong to Captain Griffiths.

MR. GORHAM: I don't see that that makes any difference.

Q. Do you know how that signal card happened to be on the Commodore at that time?

A. We got it from Captain Griffiths at the time we were towing their barges.

Q. You had been towing their barges before?

A. Yes, sir.

Q. What would be good seamanship with reference to giving a signal to a tow, under the conditions of weather that existed that night, where the tug made a two-point change to the north?

A. Well, it would be entirely uncalled for.

Q. Why?

A. Because the change was not large and the barge could see our light all the time, and they would know when we made the change.

Q. And what would be the effect if they did not see the lights and did not make any change?

A. That would bring them around with the tug.

Q. What lights did you have on the tug?

A. We carried range lights, a bright light on the fore masthead, showing aft pretty high up, and another one showing aft at the head of the flagstaff.

Q. What kind of lights were those?

A. Electric lights—bright lights.

Q. And what, if anything, would have indicated or shown to the man on the barge that the tug had changed her course?

A. As soon as he saw the lights—they were following the line of the tug, and if the lights changed the barge would change her course—she could tell how the lights were changing.

Q. How was the forward light—was it higher or lower than the masthead light on the tug?

A. The forward light was the high light.

Q. In a case where the lights can be seen, which gives the more definite information, the sight of the light or a whistle, on a night such as this one that you were encountering?

A. The light would be the best information that they would have; that would be the quickest and the best; they wouldn't have to look at the card to see what signal was given.

Q. On this trip up had the course been straight or had there been turns in the course?

A. From where?

Q. From where you took the barge at the boundary line.

A. It had been very crooked, indeed.

Q. What kind of angles had you turned on that trip?

A. We had several times turned an angle close to or probably over 90 degrees.

Q. And during those times were any signals given the barge to port or starboard her helm?

A. No, sir, there was not.

Q. For what manenvers, if any, is it customary for a tug to give to a barge signals when towing?

A. To give a signal?

Q. Yes.

A. We used the signal card for getting the anchor ready, for getting steam up ready to anchor, to pay out 15 fathoms of chain or heave in 15 fathoms of chain, or get up steam, or let go her tow lines—that is about all.

Q. Have you any charts with you showing the course that you took when you made these turns that you speak of?

A. I don't believe I have got it here tonight.

Q. Will you get it and bring it tomorrow?

A. Yes, I will.

Q. Can you state without looking at the chart where these turns were made?

A. Oh, yes; they would be made in the first instance at Chatham Point, and they would be made again in Lama Pass, coming up by the light at Bella Bella there, and again in North Passage—those are the sharpest turns.

Q. I wish you would explain to the Court the character of strain that would be put on this shackle and tow-line when the tug changed her course two points to the north from the course of N. W. that you were pursuing, assuming that the barge did not put her helm over.

A. By changing the course two points?

Q. Two points.

A. There would not be any sudden strain at all.

Q. Explain that to the Court, why there would not be a sudden strain?

A. There would not be a sudden strain because there is a long towline out, and the strain is not very great with 180 fathoms of tow-line out—the tow-line is always hanging in a bight.

Q. Hanging in the water?

A. Hanging in the water in a bight, and changing the course two points, there would be two bights in the water, and it is a very slight strain—it would be comparatively nothing.

Q. What about the towing machine?

A. The towing machine would have taken up the strain if there had been any; if there had been any jerk the towing

machine is calculated to take up any sudden jerk that com on the line.

Q. In those towing machines, when there is any addi tional strain, what do they do with reference to the tow line?

A. It lets out the tow-line.

Q. What is the design and purpose of a towing machine

A. It is designed for that purpose, to keep an equ strain on the line—to equalize the strain on a tow-line, an equalize it wherever there is likely to be a sudden jerk.

Q. Do you know of your own knowledge that the tow ing machine on the Commodore that night was in automat and working at and before the time the shackle broke?

A. Yes, sir, I know.

Q. How do you know it?

A. I know by the steam that came alongside of the sh from the exhaust.

Q. Do you know who started the towing machine tha night?

A. Captain Johnson went down and started it.

Q. What time was that?

A. Sometime previous to getting to Tree Point; wouldn't say the time because I don't know now.

Q. Now, assuming that the Commodore put her hel hard over and kept it there until the tug had made a chang of 90 degrees or more from her previous course, and tha no signal was given to the barge by the whistle, and that th barge did not put her helm over, what kind of a strain, any, would be put upon the shackle?

A. Well, you wouldn't put a very great deal of strain o it for the machine would pay it out; and in putting the hel over it would help the tow-line out and would lessen th strain on the line and make it safer.

Q. Is there any reason why it would be good seamanshi to not give any signal to the barge to port her helm whe the tug put her helm hard over so as to go at an angle 90 degrees?

MR. GORHAM: I think that is leading—it suggests th answer to the witness.

MR. STRATTON: I want to know—it doesn't sugge anything to me.

Q. I want to know why it would be good seamanship no to give the barge a signal?

A. I would consider it not to be good seamanship be cause he might put his helm over too quick for us.

Q. And what would happen?

A. If he put his helm hard over at the same time we did the effect would be to bring the vessels pretty near to each other, and we would have an awful lot of slack line to take care of. By not putting his helm hard over and in letting the tow bring the barge over, it tended to keep the tow line taut all the time.

Q. I will ask you when you changed the course of two points shortly before the shackle broke whether or not if the shackle had not broken the barge would have gone up as close to the island as the tug was at the time you changed your course?

A. She would not go so close, no.

Q. You were a half a mile from the island when you changed your course?

A. We estimated it at half a mile—it may have been a little more.

Q. State whether or not in your opinion the barge would have gone any closer to the island than she was at the time you made the change of two points?

A. She would go a trifle closer than the barge was at that time, yes; she wouldn't go as close as the tug did but she would go closer than the barge was.

Q. How far in your estimation did the barge pass to the eastward of the small island after you changed your course two points?

A. We had the far end of the island pretty much abeam after we turned around after we broke adrift.

Q. And that would make it how far that you cleared the island, in your judgment?

A. I wasn't looking particularly at the island; we were busy getting the tow-line in, but I should judge we were between a quarter and a half a mile.

Q. I say how much would the tug have cleared the island if the shackle had not broken?

A. A little—between a quarter and a half a mile.

Q. State whether or not that was a perfectly safe turn at that point.

A. Yes, that was safe.

Q. Would the barge, if the shackle had not broken, have gotten as close as that to the small island?

A. She was following in our wake; she would be the same distance off.

Q. If the shackle had not broken, and if you had put the helm hard a-port so as to cause the tug to turn at an angle of 90 degrees to the right, and the barge had not put her helm aport, state whether or not the barge would have gotten any closer to the island than the tug did?

A. She would not have come as close.

Q. Explain that to the Court. You can illustrate that, possibly.

A. The barge,—in our changing our course the head of the tug was changing at right angles; if the barge left her wheel as it was, the minute the tug changed her course it would put a tension on the tow line to pull the barge around with us and keep it at a more even tension than if the barge had ported.

Q. Draw a little diagram, if you will, on the assumption that you put your helm hard aport—on that assumption, if you put your helm hard aport and gave no signal to the barge and the barge did not put her helm—

A. All right. This is the tug—

Q. Put "T" there for tug. Now, put the little island and Mary Island out there (indicating).

A. That is a change of 90 degrees?

Q. Yes, 90 degrees, and you put your helm hard over.

A. Now, you come around like this—we will say this is 90 degrees here. Supposing the barge at the same time had ported her helm hard over, she would swing end to end and we would carry her along for a short time; and at the time we are heading on a 90 degrees change, the tow-line would hang over the port side towards the barge and the bight would hang down, and as the barge comes along here there would be more slack there than the machine could take care of.

Q. That is, assuming the barge had put her helm over 90 degrees?

A. Yes, sir.

Q. Now, assuming the barge put her helm over 90 degrees, then the course of the barge would be B-A?

A. Yes.

Q. That of the tug would be T-C?

A. Yes.

Q. Now, assuming that the barge did not put her helm hard aport or aport at all, then mark the course of the barge?

A. The barge would come along here, and as soon as we changed our course the tension would come on this side of the barge and swing her bow to port, and she would pull a course something like this—she would not come down as far as that—we would drag her around before she got there, but she would make a good big circle instead of a sharp one.

Q. Would the barge come closer to the island than the tug would?

A. No, she would come closer than she was up here, but she would not come as close to the island as the tug was.

Q. So the line the barge would take if she did not put her helm hard over would be B-D-E-C. Now, explain to the Court whether or not if the tugboat put her helm hard aport and made a circle of 90 degrees and the barge did not port her helm, there would be any sudden strain on the towing connections, or what strain, if any, there would be.

A. There would not be any sudden strain; there would be a little increase in strain here as she came around here, but it would be very, very little.

Q. Would that, in your opinion, be any unusual, excessive or extraordinary strain?

A. No, sir, it would not.

Q. Do you know whether or not the towing machine aboard the tug was in good condition?

A. The towing machine aboard the tug was in good condition, yes, sir.

Q. Now, what kind of a lookout did you keep at, and all the way up from, Tree Point to the time you sighted the small island?

A. We kept a very sharp lookout.

Q. State whether or not you are accustomed to keeping a lookout?

A. Yes, I am accustomed to.

Q. When, if at all, did you see any breakers that night?

A. I saw breakers after we had tried to pick the barge up and found we couldn't get close enough to her to get our line to her.

Q. Did you see the breakers on the first circle you made, or was it on the second circle, as you have testified?

A. On the second circle, after we come back from the barge and found that we couldn't get hold of her again.

Q. When you saw the island first did you see any breakers?

A. No, sir.

Q. Did you hear any?

A. No, sir, I heard the swish of the water all around, but not the breakers on the rocks.

Q. Do you know what the condition was of the compass on the Commodore that trip?

A. It was in good condition.

Q. Had it been regulated or adjusted before that?

A. Just previous to leaving home.

Q. By whom?

A. Captain Eddy.

Q. Who is he?

A. He is a naval adjuster there.

Q. Where?

A. In Vancouver.

Q. Is he the man that generally does those things for vessels?

A. He does. I am saying Captain Eddy—there is a Captain Eddy and a Captain Williams, and I wouldn't be positive now whether it was Williams or Eddy that corrected our compass that time. Williams generally does it, but I wouldn't be sure whether it was Eddy or Williams.

Q. You know it was corrected just before you left, at any rate?

A. Yes.

Q. How long have you known Captain Johnson as a seaman and navigator?

A. I have known Captain Johnson since he was a boy in knickerbockers.

Q. As a seaman and navigator, I mean?

A. I have known him from youth up.

Q. Have you during the time he has been a seafaring man had an opportunity to observe his care and prudence and skill as a navigator and seaman?

A. Yes, sir, I have had all kinds of opportunities.

Q. What is your opinion of the care and skill and prudence of Johnson as a navigator at sea?

A. My opinion of him is very high.

Q. Did the tug have any patent sounder aboard that night?

A. Sounding machines, you mean?

Q. Yes.

A. No, sir.

Q. Did it ever have?

A. No, sir, never had any.

Q. Is it customary for tug boats to have sounding machines?

A. Not for tug boats, no, sir.

Q. Do you know of any tug boats that have sounding machines on them?

A. I know one, the—

Q. How did she happen to have it?

A. She was a fishing steamer and it was left aboard when she was turned into a tug.

Q. Did you have a hand lead aboard that night?

A. Yes, we had a hand lead.

Q. Was it used?

A. No, sir, it was not used.

Q. Why not?

A. Because there was no use trying to use it; it was in too deep water, and we were coming in with a barge in behind us; a hand line cannot be used in over 20 fathoms of water unless you stop the boat.

Q. What would have happened if you had stopped the boat?

A. The barge would have come up behind us of course.

Q. State whether or not it was practical to use a hand lead where you were?

A. No, sir.

Q. Did you have any occasion, or did anything happen that would cause you to believe there was any occasion, to use the lead?

A. That night?

Q. Yes.

A. No, sir.

Q. Do you know what the international rule is relating to fog whistles?

A. Yes, sir, I know.

Q. Do you know what the international rule is with reference to whistling in fogs, mists, falling snow or heavy rain storms, whether by day or night?

A. Yes.

Q. What is the signal?

A. Blow one prolonged blast and two short ones.

Q. How often?

A. About every two minutes.

Q. What is the length of a long blast?

A. Four to six seconds.

Q. I will ask you whether or not the night of this accident any fog signals were given?

A. They were blown when we seen any occasion for it, yes.

Q. Did you blow any whistles to get an echo that night?

A. No, sir.

Q. Why?

A. It was blowing too hard, and we were too far off shore, we couldn't have gotten an echo if we had been a quarter or a half a mile off shore that night with the wind behind us.

Q. Did you have any reason to believe you were out of your course?

A. No, sir, I did not.

Q. What, in your opinion, was the speed of your vessel that night—reasonable or unreasonable at all times?

A. About 7½.

Q. I say was it reasonable or unreasonable under the circumstances?

A. A reasonable speed, yes.

Q. Now, what were the conditions of the weather south of Port Simpson that night?

A. Southeast wind, rain, snow, sleet—mostly rain down there.

Q. How far did you stand off from Port Simpson?

A. I guess the nearest we got to Port Simpson would be five or six miles.

Q. Was that any out of your course?

A. No, there are two different courses to take there, of course.

Q. Which course did you take?

A. We took over towards the Pointers.

Q. Towards Port Simpson?

A. Yes.

Q. What reason did you have for taking that particular tack?

A. Why, Johnson was better acquainted with the course coming out of Anyox and going this way, and at Lamb Rock there was no horn and there had been frequent snow squalls, and we did not want to go on Green Island.

Q. Green Island is on the other tack, is it?

A. It is on the other shore, yes.

Q. How about the wind down at Simpson?

A. The wind was pretty much southeast.

Q. At Simpson?

A. It was east.

Q. Was there any advantage in going over to Simpson and getting the wind and making the course you intended to take?

A. Yes, sir, there was an advantage in going over there and getting an east wind through there.

Q. At the time you reached Simpson or four or five miles abreast, as you have stated, what was the condition of the weather with reference to getting better or worse than it had been?

A. The weather cleared up there.

Q. Was there any reason in your opinion as a navigator for going into Port Simpson?

A. Not any.

Q. Could you see the land at Port Simpson?

A. Yes.

Q. Is there a lighthouse there?

A. Yes, there is a light just outside of Simpson.

Q. Did you see the light?

A. Yes.

Q. Now, when you were on that boat I understand you were signed on as purser?

A. Yes, sir.

Q. Did you have any watch that night?

A. No.

Q. And what was your object in going in to the bridge?

A. Well, I was pretty much interested, you know, and it was a dirty night and I was there to give Frank all the help I could; and my position in the Company, of course, I was interested in the vessel, and her welfare, and I was out there to keep a lookout and give Captain Johnson all the assistance I possibly could in taking care of the vessel and the tow.

Q. How did you happen to go on that trip, Captain?

A. Mr. Mylroie asked me to take the trip with him.

Q. Why?

A. I guess he thought that Frank had never had very much experience in outside work and he wanted me to make the trip.

Q. Did you go outside—

A. Yes.

Q. Did the trip from Vancouver to Anchorage take the Commodore out in the ocean when she was going to Anchorage?

A. Yes, sir.

Q. Where is the wheel house of the Commodore located with reference to the stem of the vessel?

A. It is probably 35 feet from the stem, maybe a little more than that.

Q. How far above the main deck is the floor of the wheelhouse?

A. About 9 feet.

Q. How far above the stem of the vessel?

A. It would very much depend on the water line level of the vessel.

Q. I am speaking of the water line level.

A. The water line level—at that time she was pretty full of coal—between six and seven feet above the stem—that is, the stem—the forward end of the ship, I mean.

Q. And how high is the deck that you have just referred to at the pilot-house above the water—how high was it above the water at that time?

A. You mean the main deck?

Q. Yes.

A. On the forward end of the ship?

Q. No, I am speaking of the main deck at the pilot-house —you said the floor of the pilot-house was 9 feet above the deck at that point, didn't you?

A. Yes.

Q. How far was that deck from the water line that night?

A. Oh, probably four feet.

Q. So the floor of the pilot-house was nine and four, or 13 feet above the water?

A. Above the water line, yes.

Q. And how high above the deck is the bulkhead at the stem? I mean how high is the stem above the deck—the rail?

A. The railing?

Q. Yes.

A. In the forward end of the ship it is about three feet—probably three-feet-six; I should say three feet.

Q. What is the distance of the pilot-house on the Haro from the stem?

A. About 30 feet; I never measured it.

MR. STRATTON: I would like to have the record show that his Honor, with the consent of the parties, viewed the Haro this morning.

MR. GORHAM: Yes, sure.

Q. Has the Commodore got any forecastle head?

A. No, sir, not any.

Q. What is the forecastle head?

A. The forecastle head is the built up deck on the forward end of the vessel.

Q. And the Commodore has none?

A. No, sir, she has none.

Q. How are the windows in the pilot-house of the Commodore in size as compared with those on the Haro?

A. They are a little deeper, they are the same width about, but a little deeper—about six inches deeper.

Q. Now, in reference to the location of a lookout on a tow-boat, and especially on the tug Commodore, where is the most appropriate and proper place for the lookout?

A. In the pilot-house.

Q. Does that apply merely to the tug Commodore or to tug-boats generally plying in Southeastern Alaskan waters?

A. Tug boats generally.

Q. Do you know what the custom and practice is and has been among tug boats in reference to the location of a lookout?

A. Yes, sir, I do.

Q. What has that been, and what is it?

A. To keep a lookout in the wheel house.

Q. Why?

A. Because the vision is clear there.

Q. How about the ability to detect sound up there?

A. You can detect sound better than you can on the deck, especially going through the water, the wind is blow-

ing the water and splashing it on the side; or if there is any sea running you get a better vision over the swells.

Q. Now, do you know where the location of the wheel house on the Ameur is?

A. Pretty well amidships, a little forward amidships.

Q. How far from the stem?

A. I will have to guess at that.

MR. GORHAM: I don't think we would want the guess of this witness.

Q. You have seen the Ameur?

A. Yes.

THE COURT: What has the Ameur to do with it?

MR. STRATTON: Captain Snoddy was captain on the Ameur; he said he would have a lookout on the Ameur and I want to show how far back the wheelhouse on the Ameur is.

Q. Does the Ameur have a forecastlehead?

A. Yes, sir.

Q. And you have been aboard the Ameur, have you?

A. Yes, sir.

Q. Have you a fairly accurate idea of the distance the wheel house is from the stem on the Ameur?

A. I should judge the Ameur was a vessel of about 200 feet, or a little over 200 feet long, and the wheel house is a little forward of midships.

Q. How many feet would you say from the stem?

A. I would say about 100 feet from the stem.

Q. What is the Ameur?

A. She was and is a freight boat fitted with a towing machine,—carries freight and has a towing apparatus as well.

Q. What is the distance between the small island and Tree Point—have you measured it?

A. About 18 miles, or very close to it; I wouldn't be positive of the miles.

Q. What is the distance between the small island and Mary Island lighthouse?

A. I think it is about two miles and a half—something like that—or two miles.

Q. When you changed your course two points to the north, Captain, what was your judgment at that time as to the distance that you had travelled from Tree Point?

A. Well, I thought it would be about 17 miles—16 or 17 miles.

Q. Had anything happened up to that time that gave

you any reason to believe you were off your course or out of your position?

A. No, sir, there had not.

Q. Would it have been possible for you or Captain Johnson to have determined with absolute accuracy the speed of the vessel from Tree Point to the small island?

A. No, it is bound to be more or less guess work; we had only our former speed to go by with the addition of the wind that had come up and was increasing.

Q. What had been your speed from Lord Rocks to Tree Point?

A. A little over 7 knots.

Q. And from Lord Rocks to Tree Point was the last course prior to the course from Tree Point to Mary Island, wasn't it?

A. Yes, sir.

Q. What would you say as to whether or not your estimate of the speed of the vessel from Tree Point to the small island is a reasonably accurate estimate?

A. It is.

Q. Do you know what the custom is and has been, and prior to last March was, in reference to the use of a taffrail log?

A. We do not ever use a taffrail log.

Q. Do others use it?

A. No, not that I know of; I don't know of anyone that uses it.

Q. Why aren't they used?

A. Because they are no good in a current, on account that there is too much drift-wood, and the log, running through a lot of driftwood, might get caught in the rudder and hang itself up, and we might lose a whole lot of it if we didn't lose the entire log—you cannot depend on it at all.

Q. What about the taffrail getting tangled up in the hawser?

A. It might get tangled up in the hawser and change its course entirely.

Q. Was there anything, Captain, to indicate, before the shackle broke, or cause you to believe, that you should have turned around and held the tug up against the wind?

A. No, sir, not anything.

Q. How far off of the Mary Island light did you believe the course pursued would take you?

A. About a mile—between half a mile and a mile.

Q. Was that a perfectly safe and proper distance?

A. Yes.

Q. To what do you attribute getting off your course and finding yourself head-on to that small island?

A. Well, there are several things I attribute that to. In the first place, in passing the light at Tree Point we only saw a glimpse of the light through the mist, and the one glimpse of that light did not give us any distance, and we had no means of getting it; and there is just a possibility that we judged the light to be from one-half to three-quarters of a mile off and that threw us off the course; and of course in the course of further events it is possible that we might have been further off than we figured.

Q. If, for instance, instead of three-quarters of a mile off you were a mile and a half off that would have put you about three-quarters of a mile closer to Mary Island, wouldn't it?

A. Oh, yes, sure it would; and other ways, again, there may be a current that drives us over, the wind might have had a tendency to throw us over, and bad steering might have had a tendency to throw us over.

Q. Bad steering, where?

A. Bad steering on the barge or on our boat.

Q. Was there any bad steering on your boat?

A. No; I wasn't watching the compass very close—Johnson was watching the compass.

Q. Mr. Croft has stated that he steered the proper course—

MR. GORHAM: Mr. Croft said he steered the course given him.

THE WITNESS: Of course the captain of the barge testified he tried to make a proper course—the barge in making a north course don't have a tendency to make the tug have a westerly course.

Q. Do you know of anything that you could have done as a skilled, careful, prudent navigator to have prevented the tug going in where she was that night half a mile off the island when you sighted it?

A. I don't know anything that we could possibly have done that would have made any difference to us; we done everything that anybody could possibly do?

Q. To what do you attribute the breaking of the shackle?

A. Well, I have not tried to fix the cause of the shackle breaking in any way. Probably the shackle was too light—it evidently was not as strong as it ought to have been; it was a weak shackle and that may have been due to a flaw in the shackle or it may have been due to crystallization or other causes.

Q. Now, have you noticed any movement of the towline and shackle when you would be towing vessels?

A. Yes, the towline is always moving, of course, when it goes through the water.

Q. To what extent does the towline vibrate?

A. You can see it by looking at it, but better by putting your hand on it; the towline being in the water and rushing through the water, the towline itself is vibrating and jarring all the time.

Q. What effect does that have on the shackle—what does that do to the shackle?

A. The jar goes through the shackle, of course.

Q. You say the towline is in the water, is that always so?

A. Part of the towline is in the water.

Q. And that is so all the time?

A. As long as the towline is out, you know.

Q. State if you know, whether that vibration and trembling and shaking of the towline and shackle is constant or intermittent?

A. It is constant.

Q. How long had the towline of the Commodore been in use prior to last March the 26th?

A. Seventeen months.

Q. Did Captain Johnson consult with you, and did you advise together, with reference to the course this vessel should take that night?

A. Yes.

Q. Did you or did you not, in your opinion, take the proper course under the conditions as you saw them that night?

A. We took the proper course.

Q. Did you have any tide tables aboard?

A. Yes, sir.

Q. Were they consulted?

A. Yes, sir, they were consulted.

Q. Did you know the condition of the tide and when it was high tide at Mary Island?

A. Yes, I knew it.

Q. Did Johnson know it?

A. Yes, sir, Johnson knew the tide.

Q. Did you have a glass aboard?

A. Yes—you mean a barometer?

Q. Yes.

A. Yes.

Q. What did that indicate with reference to weather, if anything?

A. It was low.

THE COURT: When?

MR. STRATTON: I mean that night, from the time you passed Tree Point to the time the shackle broke?

A. I don't know from the time we passed Tree Point, I never looked at it.

Q. Prior to that?

A. Prior to that it was steady—it was a low glass.

Q. Did it indicate anything unusual?

A. No, the glass was low—the snow squalls might do that, you know.

Q. Was there anything in the condition of the glass to indicate that you should not proceed?

A. Not anything, no.

Q. After you passed Tree Point when did you first sight land?

A. Some little time after midnight, we saw land on the port side.

Q. And when was that with reference to changing a half point to the north?

A. It was about the same time we changed.

Q. Did you know where you were when you sighted that land?

A. We sighted it on the port quarter.

Q. What land did you think it was at that time?

A. I took it to be Duke Island.

Q. When did you next sight any land?

A. When we sighted the small island ahead.

Q. Were you looking for land all the time?

A. Yes, sir.

Q. Between the time you say you thought you sighted Duke Island and the time you saw the small island?

A. Yes.

Q. If any land could have been seen would you have seen it?

A. Yes, I would have seen it.

Q. Is your eyesight good?

A. Yes.

Q. I think you have said that you thought you were one-half mile away from the small island when you saw it?

A. Yes, sir.

Q. And what was it that prevented you from sighting the small island until you were only a half mile away from it?

A. The nature of the night; there was snow drifting down on top pretty much and we were already cutting down steam; we done away with that smoke nuisance pretty much by slowing down.

Q. And you slowed down at what time?

A. I am not quite sure about the time—I had my head out of the window.

Q. I mean in reference to the time you changed your course one half a point to the north?

A. We slowed down and changed the course about the same time.

Q. How much did you haul off as soon as you saw this small island?

A. Two points.

Q. Now, when you sighted the small island, who gave the order to the quartermaster to port two points?

A. Captain Johnson.

Q. Did you hear him do so?

A. Yes, sir, I heard him.

Q. Do you know whether the quartermaster obeyed that order?

A. Yes, sir, he obeyed it.

Q. Did you at that time take the wheel from the quartermaster?

A. No.

Q. Did you afterwards take the wheel from him?

A. I took it away from him when we pretty near ran into the small island after the first turn we made trying to pick up the barge.

Q. That was after the shackle broke?

A. Yes, sir.

Q. Did you take it from him at any other time?

A. No, sir, I did not.

Q. Did you say anything to him about it?

A. No, sir, I did not.

Q. Did you say anything to him prior to that time about his actions at the wheel?

A. No.

Q. Now, prior to the time that you slowed down at 1 o'clock, do you know whether any signal had been given from the pilot house to the engine room for the engineer to stand by the engine?

A. Yes, sir, he was given a standby bell.

Q. Who gave that telegraph?

A. Captain Johnson did.

Q. Did you hear a reply?

A. Yes, sir, I heard a reply.

Q. Do you know what the boat did immediately after he got that order to stand by?

A. What the boat did?

Q. Yes.

A. I don't quite get that—we pursued our course.

Q. When a standby order is given what does the engineer do with his engine?

A. He works the steam back—he lets the steam go back so if he gets a bell after that to stop or slow down it won't blow off steam—that is the idea in giving a standby bell.

Q. What effect does letting the steam go back have on the speed of the boat, if any?

A. It slackens the speed.

Q. Did you notice after giving that standby bell that the boat did slacken?

A. Yes.

Q. Did you hear the reply in the pilot-house?

A. Yes, sir.

Q. There is a telegraph in the pilot-house, is there?

A. Yes, there is a telegraph in the pilot-house.

Q. Later on, at the time you slowed down, do you know whether any signal was given to the engineer to slow down, from the pilot-house?

A. Yes, sir, I know.

Q. Do you know whether there was an answer?

A. Yes, there was an answer.

Q. Did you hear the answer?

A. Yes, sir.

Q. Do you know the distance from Tree Point to Mary Island light?

A. About 21 miles.

Q. Have you had any experience with the breaking of shackles on tug-boats?

A. Oh, yes.

Q. State to the Court what experience you have had in that respect.

A. Well, I have broke several towing shackles.

Q. When they broke what occasioned the break?

A. Well, it is a very hard thing to tell what occasioned the breaking; we thought it was crystallization.

Q. Was there any excessive or unusual strain put on them?

A. Not any, no. May I specify any particular case?

Q. Yes.

A. Once on the Commodore—that is before we had a towing machine—we had a heavy cable hawser, 15 inches; we had this hawser spliced, and we hadn't a shackle heavy enough or large enough to take the splice, and I finally found McKinnon and McKee had three—

Q. They are a hardware store in Vancouver, are they?

A. Yes. They had three shackles; they were very heavy shackles, as I remember them—they were 2-inch iron with a good spread to them; and I got two of those shackles. One

of them, in putting it on the tow line—it was just large enough to let the tow line go in between the opening in the shackle—the shackle was standing on a soft coil of rope; I give the tow line a clip with a maul and broke the shackle right in the middle.

Q. What kind of a blow was it with reference to being hard or easy?

A. It was a hard blow on the shackle, with the shackle standing on a soft line, and it went right in two.

Q. What was the shackle made of—what kind of iron?

A. The shackle was a Norway wrought iron shackle.

Q. With what was the shackle struck?

A. With a maul.

Q. Wood or iron?

A. Iron.

Q. Where was the tow line lying—what was the tow line lying on?

A. The tow line was lying in a big coil on deck.

Q. And the shackle was where?

A. Standing over it just like this (indicating) to bring it down over the line.

Q. Was the shackle resting upon any hard substance?

A. No.

Q. Did you make any investigation of that shackle after the breaking?

A. I took it back to them and they gave me another one.

Q. What was found to be wrong with it?

MR. GORHAM: If you have any personal knowledge.

THE WITNESS: I only know what they told me.

MR. GORHAM: Never mind what they told you.

Q. (By Mr. Stratton): To whom did you take it?

A. I took it back to McKinnon and McKee.

Q. Did you have a conversation with them about it?

A. Yes.

Q. Did you discuss the cause of the breaking with them?

A. Why, yes, of course I did.

Q. Do you know personally whether they made any examination of the shackle to determine the cause of the break?

A. No, I do not.

Q. What was the conversation you had with the man who sold you the shackle in reference to its breaking?

MR. GORHAM: We object to that, if the Court please; it is hearsay—it has not been shown what character of iron it was.

THE COURT: I would rather hear from Mr. Stratton on that.

MR. STRATTON: From your Honor's remark, I don't think I will say anything. Allow us an exception.

Q. What other experience, if any, have you had with the breaking of wrought iron shackles, chains or other instrumentalities?

A. Well, we have broke anchor chains on the tugs, and on shore at the B. C. Mills, and have had quite a little outside experience besides tugs on the chains there, what we call a bull chain.

Q. What is it made out of?

A. It is made out of wrought iron; very heavy generally, and after being in use for a year and a half or two years, they call it crystallization when it breaks.

MR. GORHAM: We move to strike out the last portion of the witness' answer in reference to what anybody calls it.

MR. STRATTON: I consent to that being stricken.

Q. What happens to them after that?

A. They break very frequently.

Q. Now, at the time these anchor chains have broken, what were those chains made of, those anchor chains?

A. Well, they were wrought iron.

Q. What kind of a strain broke those anchor chains, Captain, that you are speaking of?

A. The last one that broke on the Commodore, we lost an anchor and 90 fathoms of chain on it. We had a boom of logs—

MR. GORHAM: If the Court please, I don't see the use of any such testimony as this. There is no testimony as to what previous uses and strains the different instrumentalities had been subjected to.

THE COURT: I do not see, Mr. Stratton, myself.

MR. STRATTON: All right, allow us an exception.

Q. Now, under the weather conditions the night of the accident how far, in your opinion, could the Mary Island light have been seen?

A. Two or three miles.

Q. Had you seen it or been able to see it prior to the time the shackle broke?

A. We had not seen it, no.

Q. Had you been able to see it—had you been looking for it?

A. Oh, yes, I had been looking for it, sure.

Q. When did you first see it that night, if you saw it at all?

A. Sometime after the barge broke away, after we made the second turn, I believe it was, and standing out from the small island we sighted the Mary Island light.

Q. Came within range of it?

A. Yes.

Q. Was the moon shining that night?

A. No, sir.

Q. If that shackle had not broke that night would the barge have gone ashore?

A. No, sir, it would not.

Q. State whether or not any 90 degree turn was made or whether the helm of the tug was put hard aport at any before the shackle was broken that night?

A. It was not.

Q. I mean between Tree Point and the time the shackle broke?

A. Previous to the breaking of the shackle?

Q. Yes.

A. No, sir, it was not.

Q. Is there a horn at the Mary Island light?

A. Yes, sir.

Q. Did you hear it that night?

A. No, sir.

Q. Why?

A. Too much wind.

Q. Now, what did you take into consideration and what did Captain Johnson take into consideration, in determining the courses to be pursued from Tree Point to Mary Island?

A. Took into consideration the distance off the island and the course that would take us up between Black Rock and the Whale Rocks and Mary Island, a safe distance off Mary Island—we took all that into consideration—we didn't take the currents into consideration because that is an unknown quantity.

Q. Did you take into consideration the stage of the tide?

A. Yes, sir.

Q. Did you take into consideration the fact that you were towing a barge?

A. Yes, sir.

Q. Did you take into consideration your speed?

A. Yes, sir.

MR. GORHAM: We don't think you ought to lead the witness that way—it is continual, and I think the Court ought to warn counsel not to continue to lead the witness—here is an examination which has lasted two hours—

MR. STRATTON: I am not to blame for that; we did not bring this lawsuit, your Honor.

THE COURT: Proceed.

Q. Have you already stated how far you figured the courses stated would take you off Mary Island?

A. About a mile.

Q. When, if at all, did you blow your fog whistle that night from Tree Point to Mary Island?

A. We blew it at different intervals during the snow storm; I wouldn't give you the time.

Q. What was the deviation of the compass?

A. Two degrees east.

Q. Then, steering by the compass a course N. W. ½ W. would be what course on the chart?

MR. GORHAM: You mean magnetic?

THE WITNESS: Magnetic, N. W. 3/8 W.

Q. And allowing for the deviation of the compass you would be steering what way by the compass on the last course you took after one o'clock?

A. The northwest course, you mean?

Q. Yes.

A. We would be steering about N. W. ⅛ W.

Q. Would it be one-eighth?

A. No, not ⅛—between 7/8 and ¾. Now, wait a minute—we would be steering N. W. ⅛—between an eighth and a quarter west.

Q. From one o'clock, after you made the one-half point change, what would be the magnetic course?

MR. GORHAM: Which magnetic course, the one he steered?

MR. STRATTON: Yes.

A. It would be N. W. about ⅛ W.—we were steering N. W. by our compass.

Q. What course were you steering by your compass on the last course after 1 o'clock?

A. After the ½ point change?

Q. Yes.

A. We were steering N. W. by our compass.

Q. I think you have already testified concerning getting an echo, haven't you?

A. Yes, sir.

Q. About what would be the diamater of the approximate circle that you made when you first turned around after the shackle had been broken—what is your opinion on that?

A. Well, on account of the windy night, dirty night, it would be a couple of hundred yards.

Q. Do you know whether in making that circle the tug turned and went in a southeasterly direction?

MR. GORHAM: We still object to his leading the witness—he puts the answer right in the witness' mouth.

MR. STRATTON: All right.

THE COURT: Yes, I think you had better try to avoid leading the witness as much as you can.

Q. What kind of a maneuver did you make first after the shackle broke?

A. We put the tug out in the wind and turned back towards the barge, and ran her up against the wind getting around.

Q. Do you know how far you ran against the wind?

A. No, I would not be very positive about the distance we ran; I was keeping a lookout for the barge and I wasn't looking at the compass at all—I don't know about the compass.

Q. Do you know Captain Dawe?

A. Yes, sir.

Q. What position did he hold on the tug at that time?

A. He was mate.

Q. Did you see him in the pilot-house that night?

A. Yes, sir, he was in the pilot-house.

Q. Do you know whether or not Dawe was there in the pilot-house when Captain Johnson gave the signal to the engineer to stand by?

A. Yes, sir, he was there.

Q. Do you know whether or not he was there when the engineer gave the signal back?

A. From the standby bell?

Q. Yes.

A. Yes, sir, he was there.

Q. How long did Dawe stay there, or did he go away at all before the shackle broke?

A. He went away before the shackle broke.

Q. Who ordered him to go?

A. I think I told him to go; I had to ask Frank about it first.

Q. Who do you mean by Frank?

A. I mean Captain Johnson, excuse me.

Q. Where did you tell him to go?

A. I asked Captain Johnson if it wouldn't be well to let Dawe go to the towing machine to see if it was all right.

and he said he thought it would; I am not sure whether I told him or whether Johnson told him.

Q. Do you know whether or not Dawe came back to the pilot-house before the shackle broke?

A. No, sir, he did not come back.

Q. Do you know how many turns of the wheel it takes to put the helm hard over?

A. From amidships?

Q. Yes.

A. Three.

Q. Do you know how many turns it would have taken of the wheel to put her hard over from the position the wheel was in at the time the shackle broke?

A. No, sir, I couldn't say—the wheel would probably be ported when amidships, but I couldn't say whether it was right on the midships dot or not, not having hold of it.

Q. How far would the wheel have to be put to port to cause the vessel to change her course two points?

A. Well—

Q. I mean from the position the wheel was in.

A. That would depend entirely—a couple of strokes would bring her over very gradually—half a dozen strokes would have brought her over,—a turn of two points is very little, and I don't know what wheel was given her.

Q. Had you steered this course before, many times or at all, I mean, from Tree Point past Mary Island?

A. Yes.

Q. Now, from your experience in navigating that channel what can you say in reference to currents, how they are apt to set—whether they are variable or uniform?

A. They are variable and very uncertain.

Q. Now, what obstructions, if any, are there between the wheelhouse and the stem on the Commodore?

A. There is really not any; there is an iron stay at the bow.

Q. How many inches in diameter is that?

A. About three-quarters.

Q. Three-quarters of an inch?

A. Yes.

Q. How high is it from the stem?

A. It goes from the stem up to the masthead.

Q. Anything else?

A. There is an anchor there—you can look over that—that is underneath—there is nothing else.

Q. Any hatches that obstruct the view?

A. Not from the pilot-house, no.

Q. What is the depth of the Commodore from the stem to the water-line when she is light?

A. I should say about 10 feet.

Q. What was the depth from the stem to the water-line?

A. You mean from the deck, don't you?

Q. Yes.

A. Repeat that, please.

Q. From the deck to the water-line; on the night of the accident what was the depth of the vessel from the deck to the water-line at the bow, that night—as she was that night?

A. I should say about 7 feet.

Q. You have said, I think, that the railing was three feet above the deck, didn't you?

A. Three foot or three-foot-six, something like that.

Q. How many pounds of steam are usually carried on the Commodore when towing?

A. 180 pounds.

Q. When a standby signal is given, what is done, if anything, with reference to the number of pounds of steam carried?

A. You drop it back to 150.

Q. What effect does that have on the speed of the boat, if any?

A. Of course it slows the engine down.

Q. Does that have any perceptible effect upon the speed of the vessel?

A. Oh, yes.

Q. That night when Captain Johnson gave the signal to stand by what occurred in reference to the speed of the vessel, if anything, immediately after the bell was given?

A. She began to slacken up a little bit.

Q. Did you notice it?

A. Yes, sir, I noticed it.

Q. That is what you mean by saying the steam came back?

A. Yes, sir, that is what I mean.

MR. STRATTON: I now offer this sketch which the witness has drawn in evidence.

MR. GORHAM: No objections.

(Whereupon said sketch was received in evidence and marked Claimant's Exhibit No. 22.)

Whereupon an adjournment was taken until 10 o'clock tomorrow morning.

MORNING SESSION,

NOVEMBER 13, 1917, 10 o'clock A. M.

CAPTAIN BJERRE: On the stand.

DIRECT EXAMINATION (Cont'd.)

BY MR. STRATTON:

Q. Captain, what, if any, low obstructions are there on the deck of the Commodore between the stem and the pilot-house, and where are they located?

A. Well, astradle the stem, pretty high on the aft part of the stem itself, is the anchor davit; the davit is not very heavy iron, about 3½ or 4 inches.

Q. How high is that anchor davit?

A. That comes over the stem about 7 feet; to the davit is fastened a block and tackle for lifting the anchor in and out; and two blocks, one block would be pretty well up and the other down near the rail—two 10x12 blocks; on the fore-part of that again, back about two feet, is a big paul bitt, a big square bitt—a square timber 18x18, if I remember it, and it stands up over a man's vision if he is back of it.

Q. You mean if he is back of it on deck?

A. Yes, back of the stem; and on the back of that again is, of course, the anchor winch or windlass—the steam winch we use for heaving the anchor; a man could look over the winch but he could not get up near the bow—there is hardly room for anybody to stand between the winch and the paul bitts; he could jam himself in, but if he did he would not be able to move anywheres, and in keeping a lookout there a man would have to stay in back of the windlass.

Q. You have reference now to a lookout being on the deck?

A. Yes; he would be back from the stem about 10 feet, and he wouldn't have a clear vision—he would have to go to one side and look over the bow, and then walk across the deck and look over the other side, and it would be a pretty hard matter to look right ahead at all, because the wind and spray and one thing and another rises up over the vessel.

Q. Where is the Commodore at this time?

A. She is at Yakutat Bay.

Q. Where is Yakutat Bay—how many miles from here, about?

A. It is 126 miles from Cape Spencer, and Cape Spencer is about 280 miles from here.

Q. What, the Commodore?

A. No, not the Commodore—the Commodore would be about 400 miles—between 400 and 425 miles, I would say.

Q. What is the condition of the Commodore?

A. Well, she is in a bad condition just now—she is disabled.

Q. And where was she going when she became disabled?

THE COURT: Now, Mr. Stratton, I don't want to unnecessarily confine you, but it seems to me that those matters are immaterial.

MR. STRATTON: I want to show where the crew is. If it will be admitted that the Commodore is disabled and the members of the crew who were members last March, who are not here now are obliged to stand by the vessel, which is in a disabled condition up there, and that the other members who are not on the Commodore at this time are out of the district and we do not know where they are, I will not continue this any further.

MR. GORHAM: I am willing to admit that, Mr. Stratton, if you will give me the names of the members of the Commodore who were on the Commodore last March.

MR. STRATTON: All right.

THE WITNESS: I could give the names of two—

Q. Give the positions they hold if you cannot give the names?

A. The second engineer, Crydon.

MR. GORHAM: He is still with the Commodore?

A. He is still with the Commodore.

MR. GORHAM: And he was last March?

A. And he was last March; and one of the firemen, but I cannot give you the fireman's name—Captain Johnson may give it to you or Mr. Smith may give it to you; and the cook.

MR. GORHAM: Those are the only three men?

A. Yes.

Q. (By Mr. Stratton): You testified yesterday concerning the moon—do you know whether or not you could have seen a moon that night if the weather had been clear?

A. I don't know whether there was a moon in the heavens or not—there was none in sight.

Q. Do you know what time of day it was when you picked up the barge on the 22nd?

A. It was very close to 7 o'clock—a little before or a little after, I wouldn't be sure of the time—about 7.

Q. You said yesterday you would bring us a map to show where those sharp turns are—

A. Yes, I can show some of them.

MR. STRATTON: We will ask to have this map marked for identification.

(Whereupon said map was Claimant's Exhibit No. 23 for identification.)

Q. Will you point out to the Court where those changes are?

A. This is a very small scaled chart, but it is the only one I can get here now.

Q. Just mark that A, B, C, and so forth.

A. This is Lama Passage; there is not any very big change here, because you have all kinds of room for a turn here.

Q. How much of a turn do you make there?

A. We make about a 90 degree turn here, but it isn't a very quick one.

Q. Where is Lama Passage?

A. That is entering the Lama Passage from the south, the turn isn't a very quick one—we take our time on that one. The quickest turn is coming out of Lama Passage.

Q. How much of a turn do you make there?

A. I want to get that name—we go from the Lama Passage to the Seaforth Channel.

Q. How much of a turn do you make there?

A. 90 degrees—perhaps more than that; it is bad right here.

Q. All right, mark that 1.

A. The next one is the worst one in the whole run—it is up here in North Passage going through here.

Q. Mark that 2.

A. All right I have marked that 2.

Q. How much of a turn is there there, Captain?

A. There is a 90 degree turn there.

Q. What is the width in there?

A. The channel is very narrow—it wouldn't be over a quarter of a mile and there is quite a strong tide running in there; we generally make that with a short towline.

Q. When you make the turn with a short towline what can you say with reference to the strain on the towing apparatus as compared with the strain when a long line is used?

A. Of course the jerks would be more sudden.

Q. With which?

A. With a short towline than with a long one.

Q. Are those the only turns shown on that map?

A. About the only ones; there are a few smaller turns, like this one here, but I would not enumerate them.

MR. STRATTON: We offer that map in evidence.

MR. GORHAM: No objections, if the Court please.

(Whereupon said map was received in evidence and marked Claimant's Exhibit No. 23.)

Q. I will ask you whether or not when you made the turns that you have already testified to, the vessel was slowed down, or how fast was she going?

A. No, it was not going full speed.

Q. And what would be the speed at that time?

A. I would imagine about 7 knots, with the wind behind.

Q. Now, I will show you claimant's identification No. 24, and I will ask if you drew that?

A. Yes, I drew that.

Q. Is it drawn to a scale?

A. No, it isn't drawn to a scale.

Q. Just for the purpose of illustrating?

A. Just to illustrate the maneuvers we went through that night when we lost the barge.

Q. What does X represent?

A. That represents the two point change in the course.

Q. And T-1 represents the location of the tug, approximately?

A. Yes.

Q. B-1 represents what?

A. The location of the barge.

Q. At the time the two point turn was made?

A. Yes.

Q. What does B-2 represent?

A. B-2 represents the barge just about the time she broke away.

Q. What does T-2 represent?

A. The tug about that time, somewhere approximate; I am not giving those distances as correct because the thing is impossible, you cannot do it—that is just showing the maneuvers we went through, as near as I can.

Q. We will mark a line here A, B, C, D, E, F, G, H, I, J, K, L, M, and N—what does that line represent?

A. That line represents the approximate track of the Commodore after the barge broke adrift; and here I want to say that I only traced those off, I am not speaking about compass directions because I did not look at the compass—I looked at the barge when I could see her, and at the island

here, and I am just giving a general idea of the maneuvers —I never looked at the compass at that time.

Q. What do the letters N. N. W. indicate?

A. That indicates a N. N. W. line we were steering after we changed our course N. W.

Q What do the letters N. W. indicate?

A. That indicates the course we were steering previous to the change of two points.

MR. STRATTON: We offer this drawing in evidence.

MR. GORHAM: No objection.

(Whereupon said drawing was received in evidence and marked Claimant's Exhibit No. 24.)

Q. Do the low obstructions that you have testified to this morning obstruct the view from the pilot-house?

A. No, sir, not any.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. What do you mean, Captain, when you say that Captain Johnson has a very high character for prudence and skill and care?

A. I mean at the time, that particular time, in relation to going up to Ketchikan; I had the highest opinion of Captain Johnson as a navigator between Alaska and British Columbia.

Q. At that time?

A. Yes, sir.

Q. Have you had cause to change that opinion since?

A. I have had no occasion to change my opinion of Johnson so far as his navigating ability is concerned.

Q. So far as prudence, care and skill are concerned?

A. As far as navigating ability is concerned—

Q. Did you confine it to his navigating ability before?

A. I confined it to his looking after the Company's boat.

Q. Looking after the interest of its owners?

A. Yes, I am speaking about the 26th day of March and before—I had the highest opinion of him that I could possibly have.

Q. Have you had occasion to change that opinion?

A. Since that time?

Q. Yes.

A. No, not in regard to his ability as a master.

Q. Not in regard to his ability as a master?

A. And a navigator.

Q. He is a man who can be trusted with floating property of the value of $150,000.00 aboard far away from his home port, is he?

A. Up and down and around these channels?

Q. Yes.

A. Yes, sir, he was.

Q. How long have you been port captain of the Claimant's corporation?

A. About three years.

Q. And have you been port captain at all times since this wreck on Mary Island that we have been discussing?

A. I still have the same position, yes—I have been on the tug part of the time.

Q. Were you port captain in the month of May of this year?

A. Yes, sir, I had the same position then.

Q. Were you on that trip when the tug was towing the Bangor to Anchorage by the way of Ketchikan in May following this accident?

A. Yes, sir.

Q. Do you remember when you arrived at Ketchikan on that trip?

A. Yes, I remember.

Q. What day was it?

A. I couldn't give you the day, Mr. Gorham.

Q. What day of the week was it?

A. I don't know the day of the week—I remember the time, perfectly.

Q. How long did you remain in Ketchikan?

A. It would be about 10 or 11 in the forenoon until 4 in the afternoon.

Q. You lost a tide getting through the narrows by that delay, didn't you?

A. Yes, sir, we did.

Q. And had to go outside through what is known as Clarence Strait?

A. We went outside instead of waiting for another tide.

Q. Why did you remain that long in Ketchikan that day?

A. We were waiting for Captain Johnson, I believe.

Q. What was Captain Johnson doing that day?

A. I could not tell you what he was doing—I didn't see him doing anything at all.

Q. Did you try to find him?

A. I was looking for him, yes.

Q. Was he at his place of duty?

A. He was around the Customs Office and different places—I don't know just where he was.

Q. This is a pretty small town, Captain, isn't it?
A. Yes, a very small town.

Q. And from the berth where the Commodore was lying to the Customs House and to your customs brokers' office did not exceed two blocks, to either place, did it?
A. No.

Q. And his duties would not take him outside of that range, would they?
A. No, I don't know where they took him—the Customs House would be out of that limit.

MR. STRATTON: Now, your Honor, I think all of this is incompetent, irrelevant and immaterial, and I object to it for that reason.

MR. GORHAM: We haven't developed it yet—the Court will see, I think, as soon as we develop it what we are trying to establish here. I am trying to show the measure or standard by which this witness gives his opinion upon the prudence and skill and care of a master mariner.

THE COURT: Proceed.

MR. STRATTON: Exception.

Q. What was the cause of the delay that 12 hours?

MR. STRATTON: I object to that as incompetent, irrelevant and immaterial.

THE COURT: Of course it is not cross examination. I want to allow you the utmost latitude, but I don't see what that has to do with it.

MR. GORHAM: The Court will see in a few minutes—I don't care to disclose my point before the witness at this time, if the Court please.

THE COURT: Very well, I won't stop you now, but I cannot allow you to go very far without disclosing your point.

MR. STRATTON: Exception.

Q. You arrived at what hour?
A. I told you I am not sure about the hour—between 11 and 12.

Q. Didn't you arrived before 9 o'clock that day in Ketchikan?
A. No, sir, I don't think we did.

Q. Didn't Captain Johnson leave the tugboat when it arrived here and practically disappear?

MR. STRATTON: May I have my objection run through all this testimony without objecting to each question, your Honor?

THE COURT: Yes.

MR. STRATTON: And save us an exception.

Q. (By Mr. Gorham): Now, you may answer my question—didn't Captain Johnson leave the tug when it arrived here and practically disappear?

A. He was to meet us at one o'clock.

Q. And did he meet you?

A. No, sir, he did not.

Q. And didn't you send searchers out for him?

MR. STRATTON: The same objection.

A. I sent a messenger out looking for him, yes.

Q. And didn't they fail in their first efforts of search to find him?

A. No, I don't believe they did.

Q. Answer yes or no—didn't they fail in their first efforts to find him?

A. No.

Q. Did they find him on their first search?

A. I stated that they,—I am speaking from hearsay.

Q. I am asking you for your personal knowledge.

A. I don't know.

Q. Did you send out searchers for him?

A. I asked some one to go for him.

Q. Wasn't the first search unsuccessful?

A. No.

Q. It was not?

A. No.

Q. Didn't you, after the failure of the first search, have your customs house broker telephone, or make telephonic inquiries for him?

A. No, he went up for him.

Q. I am asking you if you didn't tell Harvey Stackpole in your presence, to telephone to certain places—

A. No, sir, I did not.

Q. You did not?

A. No, sir.

Q. You remember that distinctly, do you?

A. No, sir, I asked him to go after him.

Q. I am not asking you that. I am asking you about these messages. Didn't Harvey Stackpole take the telephone down, in your presence, and telephone to certain places for Captain Johnson?

A. I don't know about telephoning, I don't remember that he did.

Q. Weren't you right there?

A. I was in the office, but I don't remember him telephoning.

Q. Didn't he in a message over the phone threaten to send the U. S. Marshal to make an arrest if Captain Johnson was not forthcoming?

A. Not that I know of, no.

Q. In your presence?

A. No.

Q. And wasn't there a jitney then sent for him?

A. No, sir, I didn't see no jitney go for him; he came back in a jitney.

Q. What was his condition when he came back?

A. It wasn't just what it was when he went ashore.

Q. What was his condition?

A. He had had too much liquor.

Q. He had had a great deal too much liquor, hadn't he?

A. Yes.

MR. STRATTON: I move to strike all of this out as being incompetent, irrelevant and immaterial, and not cross examination; it does not tend to prove anything.

THE COURT: Your objection is in the record.

Q. When he came back in the jitney, where was the jitney when he got out of it on the dock?

A. On the dock.

Q. What did you say to him there?

A. I didn't speak to him on the dock at all, not until he got aboard.

Q. What did you say to him then?

MR. STRATTON: I object to that as incompetent, irrelevant and immaterial.

THE COURT: Overruled.

MR. STRATTON: Exception.

Q. What did you say to him aboard your ship when you got him there?

A. I said a lot of things—I don't remember what I did say.

Q. You were very indignant, weren't you?

A. Yes, sir.

Q. And very angry?

A. Yes, sir.

Q. You felt that he had abused the confidence the owners of that vessel had reposed in him, didn't you?

A. Yes, sir.

Q. What did he say?

A. He said something about having me put off the tug.

Q. And didn't you go ashore with the intention of having him arrested and weren't you called back by Harvey Stackpole?

A. No, not to have him arrested.

Q. What did you go ashore for?

A. I went ashore to wire down home.

Q. And did you wire down home?

A. No, sir, I did not.

Q. And was his condition at that time, his physical and mental condition, such a condition as an officer should have been in who was on the bridge of a steamer and would have to stand a watch?

A. No.

Q. And he was master of the vessel at that time, wasn't he?

A. Yes, sir.

Q. On the papers?

A. Yes, sir.

Q. You say you were acting as pilot, Captain?

A. Yes, sir.

Q. Captain Johnson was master on this trip in March?

A. Yes, sir.

Q. Do the pilot and the master consult together from time to time?

A. We very often did, yes, sir.

Q. Isn't it usual?

A. Yes, sir, it is usual.

Q. And you were the only two lookouts?

A. At Mary Island, you mean?

Q. No, any time that night.

A. Yes. Dawe was in the wheel-house part of the time after 12 o'clock—not very long.

Q. How long after 12?

MR. STRATTON: You mean how long was he in the pilot-house?

MR. GORHAM: Yes.

A. He was in the pilot-house three-quarters of an hour, or something like that, after 12 o'clock.

Q. After Johnson came on watch?

A. Johnson never came on watch; I am talking about after 12 o'clock.

Q. After Dawe came on watch?

A. Yes, sir.

Q. And Dawe was in the pilot-house after he came on watch for how long?

A. I couldn't give you the exact time,—I should say three-quarters of an hour or an hour.

Q. That would be pretty nearly one o'clock?

A. Yes, sir.

Q. Then he went out of the pilot-house?

A. Yes, sir.

Q. Where was he during that hour—where was he standing, on the port side or starboard side?

A. He must have been on the port side at different times, I couldn't say.

Q. Where was Captain Johnson?

A. On the port side.

Q. Where were you standing?

A. I was on the starboard side—he might have been shifting around a little.

Q. Was Dawe in the pilot-house as a pilot, or was that his watch?

A. That was his watch.

Q. Not as a pilot?

A. He was there in the capacity of a mate.

Q. In charge of the watch?

A. In charge of the watch, yes.

Q. With the Captain over him?

A. With the Captain over him, yes.

Q. And he was acting as a lookout?

A. Oh, yes, he was acting as a lookout.

Q. During that hour?

A. Yes, he was looking out of the window.

Q. Were you in the pilot-house at the time you passed Tree Point?

A. Yes, sir.

Q. Captain Johnson's regular watch was from 6 the previous evening until 12 that night, wasn't it?

A. Yes.

Q. And did Captain Johnson consult you from time to time as to the points of land, and light, and objects you saw?

A. Oh, yes.

Q. That is usual, isn't it?

A. Yes, that is usual.

Q. Always when one man detects something he passes it to the other?

A. He generally does.

Q. Isn't that the custom?

A. Yes, that's the custom.

Q. Do you know the range of visibility of the Tree Point light?

A. Well, I have seen it, Mr. Gorham, about 14 miles at times.

Q. Do you know the power of that light?

A. I am not positive, no.

Q. It is one of the best on the Alaskan Coast, isn't it?

A. It is a very good light, yes.

Q. It is a 2300 candle-power, isn't it?

A. It may be, I don't know.

Q. As against a 490 candle-power for the Mary Island light?

A. Yes, sir.

Q. Now, you came from the eastward through the red sector of the Tree Point light, didn't you?

A. Yes, sir, we passed through the red sector.

Q. Did you see the red sector?

A. No, sir, I did not.

Q. Didn't see it at all?

A. No.

Q. Then came within three-quarters of a mile of this Tree Point light, this 2300 candle-power light?

A. It is something like that; we judged it was three-quarters—it might have been more.

Q. You don't know, do you?

A. No, sir, I do not.

Q. And you made no effort to ascertain how far off you were?

A. Yes, we made every effort.

Q. What effort did you make?

A. We never got another bea...g.

Q. Just the one bearing?

A. Just the one bearing, yes.

Q. But you could see the Mary Island light after the wreck a mile away in snow squalls, but you could not see the Tree Point light, which is five times as great, nearly, in power, without snow squalls—is that what you want the Court to understand?

A. No, I want you to understand that we passed Tree Point in a very heavy squall; when we passed Mary Island there was no snow squall at the time that we saw the light.

Q. What was the weather before you reached Tree Points

A. It was squally.

Q. Was it nice weather or stormy weather?

A. It was dirty weather.

Q. Did you hear Captain Johnson testify last June in taking his deposition here in Ketchikan in this case?

A. Yes, sir, I did.

Q. And when he testified it was nice weather before reaching Tree Point he was telling the truth or otherwise?

A. It was nice weather by Port Simpson and down towards the Lord Rocks.

Q. How far is that from Tree Point?

A. Lord Rocks is about 6 miles from Tree Point.

Q. Did you hear him state that after Passing Tree Point the weather grew worse as the vessel proceeded?

A. Yes, sir, I think I did.

Q. Was that true?

A. That was true with regard to wind, yes.

Q. Not with regard to the sea?

A. The sea was never very bad.

Q. Did you hear him testify last June that he made this half point change at 1 o'clock?

A. Yes, sir.

Q. And that he turned on the light in order to get the time on the logbook?

A. Yes.

Q. So you know the course was changed at 1 o'clock?

A. I presume it was changed about 1 o'clock—I didn't look at the time myself.

Q. And that change was one-half a point to the north, was it not?

A. Yes, sir.

Q. Do you remember the entry in the logbook of that change of course?

A. No, I don't; I never made any entry in the logbook, Mr. Gorham.

Q. Did you ever see it?

A. I believe I seen it.

Q. Have you seen it recently?

A. No.

Q. All right, I will show it to you. Under date of March 25th, 1916, on the page marked in ink "Libellant's Exhibit 2, William T. Mahoney, Deputy Clerk," I will ask you if those are the log entries for that voyage on that date?

A. There are none of those my entries.

Q. I didn't ask you that.

A. I presume they are.

Q. Don't you know they are?

A. No, sir, I do not.

Q. Look at it and see—is that the logbook of the Commodore?

A. Yes, it appears to be the logbook from the Commodore.

Q. Didn't you hear Captain Johnson testify that he made those entries?

A. Yes, sir, I heard him.

Q. Didn't you hear him testify that he made the entry 1:00, changed, slowed down—that is his handwriting?

A. About 1 o'clock.

Q. No, I am asking you about the entry. Did you hear him testify that he made that entry himself?

A. Yes, I believe I did; I wouldn't be very positive.

Q. And didn't you hear him testify at that time when he was interrogated about the word "changed" he stated that meant change of course?

MR. STRATTON: If the Court please, I think this is improper cross examination.

THE COURT: I think you are not cross examining the witness as to what he testified to on his direct examination—you are asking him about hearing someone else testify at some other hearing.

MR. GORHAM: It will all have a direct bearing on my following question.

THE COURT: I will permit one or two questions more in order to save time, but I do not think it should be pursued to any length.

Q. Now, Captain, didn't Captain Johnson testify that at the time that entry was made he used the word changed because at that time he could neither see land nor lights?

MR. STRATTON: I object to that as incompetent, irrelevant and immaterial and not cross examination.

THE COURT: If that is one of your two questions I will admit it.

MR. GORHAM: Yes.

MR. STRATTON: Exception.

Q. (By Mr. Gorham): Here is the other one—didn't Captain Johnson testify at that hearing that he saw no land or light after passing Tree Point that night?

MR. STRATTON: The same objection.

THE COURT: That is the same question.

MR. GORHAM: No, that is the last question I want to ask.

THE COURT: If that is the end of it all right.

THE WITNESS: I don't know whether he did or not.

Q. If he did, was it true—up to the time of picking up the island?

A. Maybe he didn't see it, I don't know; I showed him what I thought was Duke Island.

Q. You showed him Duke Island?

A. I didn't specify at that time; I said, "I believe that is land, Frank—it is going to clear up."

Q. Where was the vessel on its N. W. ½ W. course at that time, 1 o'clock—approximately how far up on that course from Tree Point?

A. Well, she would be up about 12 miles.

Q. How far would it be on the course—12 miles from Tree Point to Duke Island?

A. It would be probably five or six miles.

Q. And when you picked up what you thought was Duke Island did you pick up the sky-line or the fore-shore?

A. I just picked up the outline of land on the southwest, what looked to be land.

Q. Was it a skyline you picked up?

A. I don't know just what you mean by skyline.

Q. The horizon.

A. The horizon—it was kind of clearing to the southwest—looked as though it was clearing, and down low underneath there it looked like land, and I believe yet it was land.

Q. How low was it?

A. A distance about like this (indicating).

Q. It was not a mountain ridge, was it?

A. You couldn't see a ridge—you could see an outline of what looked like land in the distance.

Q. At 1 o'clock at night?

A. I didn't take the time.

Q. You said it was when the course was changed?

A. Just before we changed the course.

Q. Now, was Sam Dawe in the pilot house at that time?

A. I wouldn't be sure whether he was or not—I don't think he was, though.

Q. You don't know whether he was?

A. No, I don't know.

Q. And where were you standing when the course was changed?

A. I would be probably on the starboard side.

Q. And how could you see from your position on the starboard side of that pilot house land on the port quarter?

A. Because I went over there and had a look when it cleared up.

Q. You went over there, did you?

A. Yes, I went over at that time.

Q. Now, Captain, you testified that when some maneuver

suggested itself to you, or there was something for some member of the crew to do, that you asked Captain Johnson if such a command should not be given—for instance, you testified that you asked Captain Johnson if he should not put the wheel over—is that right—if the helmsman should not put it over?

A. No, I don't think I did—I didn't ask him about putting the wheel over.

Q. Who gave the orders to the helmsman?

A. Captain Johnson, as a rule.

Q. At other times who gave them?

A. Dawe.

Q. And when he wasn't in the pilot house?

A. I might have done it and passed the word, as it were; I never changed the course without first referring to Captain Johnson.

Q. Asking his permission?

A. Yes.

Q. And didn't you give, as a general rule, orders to the mate on that voyage?

A. No, no.

Q. And particularly that night?

A. No.

Q. And if Mr. Dawe testifies that you and not Captain Johnson did give the orders, is that true?

A. I passed word that night to Dawe to go to the towing machine.

Q. I am not asking you that. I am asking you if you didn't give orders to mate Dawe that night?

A. Not without first consulting Captain Johnson.

Q. You always took your hat off to Johnson and said, "Please, may I give orders to the mate."

A. No, I never took off my hat at all.

Q. Isn't it true that you actually had charge of that vessel, representing the tug owners that night?

A. No, sir, I wasn't—I was there looking after the interest of the vessel.

Q. The master was there looking after their interests, wasn't he?

A. Sure, yes.

Q. Now, when you sighted the little island you stated you were not less than one-half a mile away?

A. Yes, sir, that is just my judgment, that is what I believed at that time.

Q. Yes, that is what you believed at the time?

A. Yes, sir.

Q. When did the barge go adrift?

A. She went adrift very shortly after that.

Q. What time of the day was it?

A. It was in the morning, about 2 o'clock, somewhere around there?

Q. It was 1:45, wasn't it?

A. I did'nt look at the time, Mr. Gorham; it was about 2 o'clock—I could not confine myself to minutes not in a case of that kind, because I don't know.

Q. Look in the logbook and see if it doesn't say: "1:45, barge got adrift, March 25, 1916?"

A. 1:45, barge broke away.

Q. Now, weren't there heavy snow squalls just immediately before and after the barge broke adrift?

A. I would not consider them very heavy squalls, no.

Q. Wasn't Mr. Dawe's deposition taken this last summer in this case?

A. Yes, sir.

Q. Were you present?

A. Yes, sir.

MR. STRATTON: I object to that as being immaterial.

MR. GORHAM: Did he testify at that time that there were heavy snow squalls immediately before and after the barge got adrift?

A. There were squalls, yes, sir.

MR. STRATTON: I object to that as not cross examination.

THE COURT: No, Mr. Gorham, I do not think that is proper cross examination.

MR. GORHAM: We except to your Honor's ruling.

Q. State whether or not there were heavy squalls of snow immediately before and after the barge broke adrift on that night?

A. There were squalls more or less heavy, not exceedingly heavy.

Q. Not exceedingly heavy?

A. No.

Q. State whether or not at the time the tow was lost there were not heavy snow squalls on?

A. No, not very heavy.

Q. State whether or not the fall of snow was so heavy that you were unable to see the Mary Island light?

A. I would have been able to see the Mary Island light if we had been in range of it—I don't know for sure, but I imagine we would.

Q. And up to the time of the barge going adrift you had not been in the range of that light?

A. We had been in the range of it evidently.

Q. You had been in the range of it and passed outside of it?

A. Yes, I think so.

Q. And you never did see the light prior to the accident?

A. No, sir, I did not, at Mary Island.

Q. The weather was very dirty, wasn't it?

A. Pretty dirty night.

Q. What do you mean by dirty?

A. I mean there was no moon in sight, it was very dark, frequent snow squalls and quite a bit of wind.

Q. And sleet?

A. Now and then, yes; not able to see very far.

Q. What did you say was your compass course from Tree Point?

A. Northwest ½ west, what we steered.

Q. Northwest ½ west compass course?

A. That is what we steered by our compass.

Q. That is what you steered by your compass?

A. Yes.

Q. And your compass had a 2 degree deviation to the east?

Yes, sir.

Q. I wish you would take a piece of paper and put that course with the deviation down in degrees—how many degrees will it make—how many degrees west of north?

A. You are speaking of west of magnetic north—true north or magnetic north—what do you want?

Q. I want to know what your compass course was in degrees—first give us the compass course N. W. ½ west.

A. About 37.

Q. 37:30, isn't it?

A. Which?

Q. Half a point.

A. 5:37 is near enough.

Q. I want it accurate—now, is it 5:37:30?

A. Yes.

Q. Then put it down 5:37:30.

A. All right.

Q. Add that to the 45.

A. Yes.

Q. Makes what?

A. That makes 50:37:30.

Q. And add that 2 degree deviation.

A. That makes it 52:37:30.

Q. 52 degrees, 37 minutes, 30 seconds?
A. Yes, sir.
Q. West?
A. Yes, sir.
Q. North 52:37:30 west?
A. Yes. Why are you going after the 2 degrees?
Q. Because you have 2 degrees deviation.
A. You are getting it wrong.
Q. Your compass has a 2 degree deviation to the east hasn't it?
A. Yes, sir.
Q. So if you want to get the magnetic you have to add the 2 degrees, don't you?
A. Could I explain? The deviation means how much the north point of the compass is drawn east or west from true north. Now, east is to the right of north, and west is to the left. We are steering, we will say, 45—well, 50:37 to the left of north, and 2 degrees to the right is to be subtracted there to get the compass course.
Q. When your compass point is to the north the deviation is 2 degrees to the east?
A. Yes, sir.
Q. Then magnetic would be 2 degrees west of that wouldn't it?
A. Yes, sir, it would.
Q. Then if you take the N. W. ½ W. course and reduce it to degrees and add 2 degrees you have got magnetic, haven't you?
A. No, sir, you have to subtract to get magnetic. Your proposition would be right if we had been steering—
Q. Never mind steering. I am just taking a hypothetical course, N. W. ½ W.—what is that in degrees?
A. I will take it all back—wait a minute—you want—
Q. I want you to express in degrees what N. W. ½ west is.
A. N. W. ½ W. in degrees is 50:37.
Q. Is N. 50:37:30 west, isn't it?
A. Yes, sir, without any deviation.
Q. Now, if you want to correct that to magnetic you have to add 2 degrees?
A. No, sir, you have to subtract.
Q. Then, if your course here is N. W. ½ W. and your compass point is pulled over to the east 2 degrees, then in order to get it magnetic you have to add 2 degrees, don't you, to get the magnetic course?
A. No, Mr. Gorham, I think I can explain this. If we are steering—if we are correct in the course we have been steering, which, in this instance, if you asked me what is the

course to steer, after taking it off the chart, my deviation would be applied as you suggest, added; but we are correct in the course that we have been steering, which is N. W. ½ W. and therefore, the deviation is subtracted.

Q. But you didn't say that.

A. That is what I am saying.

Q. Yesterday you testified that your courses were compass courses, and the N. W. ½ W. was your compass course?

A. Yes, that is what we were steering.

Q. That is your compass course in that log for that voyage?

A. Yes, that is what we were steering.

Q. That is correct, according to the compass card in your pilot-house?

A. Yes, sir.

Q. And your compass had a variation of two degrees to the east?

A. Yes, sir.

Q. So that would swing the magnetic course two degrees to the west, wouldn't it?

A. No, it would swing it two degrees to the east.

Q. That would be four degrees to the east then?

A. No, it wouldn't be anything of the kind. If we take a course off a chart to steer, and if we are correct in the course we have been steering—

Q. I am not asking you about a correct course; I am asking you about your log which you say was a compass course, N. W. ½ W.?

A. By the Commodore's compass, not the chart.

Q. Never mind the chart. Here is your logbook you say from Tree Point you steered N. W. ½ W.?

A. Yes, sir.

Q. By your compass?

A. Yes, sir.

Q. And your compass has a deviation of two degrees to the east?

A. Yes, sir.

Q. So as a matter of fact you were on a course N. W. ½ W., two degrees west of that?

A. No, sir, two degrees north of that.

Q. Then you subtract instead of add. You are willing to leave it that way, are you?

A. Yes, sir.

Q. What is N. W. 3/8 W., reduced to degrees? Reduce N. W. 3/8 W. to degrees?

A. I cannot do that without a table, Mr. Gorham.

Q. I will show this to counsel, I think it is correct as

far as the points are concerned. N. W. is 45 degrees, isn't it?

A. Yes, sir, N. W. is 45 degrees.

Q. Now, what is N. W. 3/8 W., in degrees?

A Three-eighths would be—do you want to take the seconds in?

Q. I want to take the seconds in, yes.

A. 4:13:07.

Q. Added to the 45 would be?

A. Let me get the course you want first.

Q. N. W. 3/8 W. magnetic?

A. It would make it 49:13:07.

Q. A N. W. 3/8 W. course is N. 49° 13′ 7″ W., is that right?

A. Yes.

Q. And how much difference is there between N. 52:37:30 and N. 49:13:07?

A. 3:24:23.

Q. 3 degrees, 24 minutes, 23 seconds?

A. Yes.

Q. Now, on an angle of 3 degrees, 24 minutes, 23 seconds, what will be the size of that angle 18 miles from the converging point?

A. I would not be able to tell you that now, Mr. Gorham. A quarter of a point will make a difference of one mile in twenty—I couldn't go into degrees on that.

Q. One mile in twenty?

A. Yes,—I may say this fifty-two degrees hasn't anything to do with that at all.

Q. You said you had a 90 degree turn at Chatham Point?

A. Just about that, yes.

Q. Chatham Point is in Johnstone Straits?

A. Yes, sir.

Q. Now, look in that log-book. You said you had these 90 degree curves or angles on this voyage previous to reaching Tree Point on March 25th—you had these right angle turns at Chatham Point, Lama Passage and North Passage?

A. Just about, yes.

Q. I wish you would look at that log-book for this trip in passing these points. Now, passing from Seymour Narrows into Cape Mudge, what would be your course?

A. I would not remember the course at all—no use asking me.

Q. What was the next change?

A. About half way, along there somewhere.

Q. At Quathiaski Point?

A. Yes.

Q. How much change would you make in your course there?

A. It would depend on your tide.

Q. What was it at that time?

A. I do not know.

Q. What would be your next course?

A. I could not state.

Q. You could not tell that?

A. No, sir, I could not offhand.

Q. Take those courses here (handing logbook to witness).

A. These are the courses we steered, of course.

Q. Those are the courses you steered?

A. I take it for that, yes.

Q. There was lots of sea room at Chatham Point—that wasn't a narrow place?

A. It is pretty narrow there, it is a pretty tight place, but there is lots of room there.

Q. Just see if you have a 90 degree turn there, will you, making that turn at Chatham Point on that voyage coming north?

A. They changed from N. W. by N. to S. W. by W.

Q. How many degrees is that?

A. That would be about 45 degrees.

Q. What is the next course? At Lama Passage? Where is your 90 degree curve on your voyage coming north—Pointer Island isn't where the turn is made, is it?

A. There is a big sweep there—I didn't take that into consideration.

Q. No 90 degree curve there at Lama Passage, is there?

A. Beg pardon?

Q. Your logbook does not show any 90 degree turn on that voyage, does it, at Lama Passage?

A. Fog Rock, it shows a 66 degree change in the course, from N. N. W. to W.

Q. At Fog Rock?

A. Yes.

Q. How many degrees is that?

A. Six points.

Q. Six points from N. N. W. to W.?

A. Yes, it would be six points—I didn't say degrees, I said six points.

Q. What is the next change?

A. Do you want that point in degrees?

Q. Yes, I want to see if there is a 90 degree turn there?

A. No, there isn't a 90 degree turn; there is a 67:30.

Q. Now, at North Passage?

A. Come along to Main Passage, that is the next one, if you like: there is a change here from N. by E. to W. by N.

Q. Where is that?

A. That is in Main Passage.

Q. What is your largest turn there?

A. From N. by E. to W. by N. would be 90 degrees.

Q. Where is N. by E.?

A. There (indicating).

Q. That is Main Passage to Dryad Point?

A. Yes—that would be about the same, about 67:30.

Q. And at North Passage your point there is Boat Bluff, isn't it?

A. Boat Bluff, yes.

Q. And Separation Point?

A. Now, the only thing in reference to Boat Bluff that I was referring to was the tide running there—the course is very seldom changed in there.

Q. Do you find a 90 degree curve in North Passage on that voyage?

A. No, I don't find it here.

Q. What is your largest curve there?

A. A little over four and three-quarters, which would be about 52—52 degrees.

Q. What did you say was the distance from the pilot-house of the tug Commodore to the stem?

A. I should judge about 35 feet.

Q. Isn't it more than that, Captain?

A. Well, it may be a little more, Mr. Gorham; between 35 and 40; I wouldn't say on that for sure; I think about 35 feet is a fair estimation.

Q. What is the distance between the pilot-house and the stem on the Haro?

A. About 30, I should judge—a little less, probably.

Q. You mean on the deck?

A. Yes, sir, on the deck.

Q. And what is the distance from the window of the pilot-house to the stem on the Commodore?

A. It is very much the same as on deck, because the overhang of the house is practically all there is, and it wouldn't be over a foot difference.

Q. And aboard the Haro it is the same way, isn't it?

A. The same way.

Q. Have you measured the distance from the pilot-house window to the inside of the stem on the Haro?

A. No, sir, I have not.

Q. Captain, if by actual measurement it is 35′ 9″, what would you say the Commodore is?

A. I would say the Commodore would be about 40.

Q. You built the Commodore?
A. I supervised the building of her, yes.
Q. When did you build her?
A. In 1907 and '08, I think it was.
Q. She is 10 years old, isn't she?
A. Just about.
Q. What did she cost?
A. At the time she was built?
Q. Yes, sir.

MR. STRATTON: That is entirely immaterial, your Honor, what it cost.

THE COURT: I don't know, I am sure; it may be preliminary to something—he may answer the question.

A. It cost somewhere between $80,000 and $85,000.

Q. What did you write off for depreciation the first year?

MR. STRATTON: We object to that—that is going into the private affairs of the company.

MR. GORHAM: No, I don't intend to go into the private affairs of the company.

MR. STRATTON: And it doesn't have any bearing on this case.

MR. GORHAM: It does have a bearing.

THE COURT: He may answer the question.

A. Five per cent.
Q. And the second year?
A. Five per cent.
Q. And the third year?
A. Five per cent.
Q. And the fourth year?
A. Five per cent.
Q. And the fifth year?
A. Five per cent.
Q. That would be 25 per cent—it is five off each year, isn't it?
A. Yes, it is five off each year.
Q. What was the value then in 1912?
A. You would have to let me see our books, I could not tell you that off hand.
Q. But you know the vessel?
A. You have the first cost, and you can take off that per cent each year.

Q. And there had not been any increase in the value of vessels up to that time, had there?

A. There have been lots of things added to increase the value to us.

Q. I mean up to 1912 there was not any increase in vessels of that character to offset this depreciation—up to 1912, was there?

A. I don't know about the value of American tugboats about that time.

Q. You don't—I thought you qualified yesterday—

A. I am talking from memory now. You are talking about the value of a tugboat in 1912.

Q. Would it have cost any more to build that vessel in 1912 than it did in 1907?

A. I don't imagine it would.

Q. The price of the materials and labor had not gone up at that time?

A. I don't think it had—I don't remember.

Q. In 1917 had the prices of labor and materials gone up?

A. I think it had, yes.

Q. And how much would it cost to build that vessel in 1917, in March?

A. That requires a lot of figuring.

Q. I mean approximately, considering her first cost?

A. Anywhere from 50 to 75 per-cent.

Q. More?

A. Yes.

Q. Not over that, Captain?

A. Well, we supply our own lumber, Mr. Gorham, and that may make a difference.

Q. You held that vessel in March and May at $150,000.00, didn't you?

MR. STRATTON: I object to that as immaterial.

MR. GORHAM: I want to show the increase in the cost of vessels—they have testified as to the value of the barge.

THE COURT: You are cross examining him now on what was brought out on direct examination, and there was nothing in the direct examination about what the value of that tug was.

MR. GORHAM: There was something about his knowledge of the value of vessels, and I am going into that. He said our barge was worth $10,000, and I want to show how he knows that. If I can show the value of this tug that he built and its enhancement in value, and whether or not water craft in general have advanced in value, it may affect his

estimate of our barge at $10,000. The Court must understand that this is claimant's witness, he was a pilot on that vessel, assisting the master, and he is what he calls the shore captain of this company and he is not going to yield to us any more than is necessary, and we have to go through these roundabout ways to get our information out of him.

MR. STRATTON: I object to this question as incompetent, irrelevant and immaterial, and not proper cross examination.

THE COURT: The objection will be overruled.

MR. STRATTON: Exception.

THE WITNESS: Yes, sir, we did.

Q. Now, between 1912 and 1917, when did the value of water craft on the Pacific Coast of North America begin to climb up?

A. After the war.

Q. That was in 1914?

A. Yes, sir.

Q. So, if you deducted your depreciation of 25 per cent up to 1912, then the vessel itself would begin to enhance in value in the market from 1914 to 1917?

A. Yes, sir.

Q. Now, what was the general advance in values of water craft of 500 tons and over say, after the war up to March, 1917?

A. It would depend of course a lot on the different craft; sea-going craft, steamers and good ships, of course, they went up by leaps and bounds.

Q. What do you mean by leaps and bounds—200, 300 and 400 per cent?

A. Oh, I have known some steamers to go up that much, yes.

Q. And barges with a capacity of 1000 tons cargo went up, didn't they?

A. They would go up some, sure.

Q. How much did they go up?

A. That is a thing that depends on the barge. Now, I have known barges, and in fact we will speak of the Bangor if you like. Take the Bangor six years ago at the time Griffiths bought her—it was hardly worth picking up off the beach; and by the time I am speaking of her, last March, figuring the Bangor would be worth about $10,000.00, I think that would be an increase of about 300 per cent of what she was worth 6 years before that.

Q. But if she was purchased for $7300.00 in 1916, would there be any increase?

A. The difference between $10,000.00 and $7300.00 would be quite an increase on that small barge.

MR. GORHAM: That is all.

MR. STRATTON: What is the tonnage of the Bangor?

MR. GORHAM: 511 registered tonnage.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. Since the commencement of the war has there been any difference in the increase in the price of vessels of large tonnage as compared with increase in vessels of smaller tonnage?

A. You mean has the increase in the vessels of tonnage been smaller or greater?

Q. Yes.

A. No, I think they would be pretty much the same—of course, steamers have increased more than sailing vessels.

Q. Now, looking at the logbook under date of March 25th, the page marked, "Libellant's Exhibit 2," note the course 11:19 Tree Point, N. W. ½ W.—

A. Yes.

Q. What was the actual direction the ship was going at that time?

A. It was going N. W. 3/8 W.

Q. Now, look at the next course, "1 o'clock, changed, slowed down, N. W."—what was the actual course of the vessel, magnetic, at that time?

A. N. W. about 1/8 W.

Q. Prior to the time that Mr. Gorham has mentioned—I think it was in May, 1917—state whether or not you had any knowledge that Captain Johnson had ever become intoxicated?

A. Not at any time.

Q. On this voyage after the wreck had Mr. Johnson been drinking any?

A. No, sir, he had not.

Q. Do you know that of your personal knowledge?

A. I know that, yes, sir.

Q. Prior to that time, had he—prior to that voyage?

A. No, sir, he had not, not to my knowledge.

MR. STRATTON: That is all.

MR. GORHAM: That is all.

QUESTIONS BY THE COURT:

Q. (By the Court): I understood you to say that a Chatham Point and Lama Point and one other place—

A. North Passage.

Q. North Passage?

A. Yes, sir.

Q. That you made a sharp turn. Did you pass those points in the day time or night time?

A. We passed—I couldn't tell very positively without looking at the log book.

Q. I wish you would look at the log book.

A. Chatham Point we passed at 7:07 P. M.—that would be just about getting dark.

Q. Chatham Point?

A. Yes. Main Passage we passed at 8 P. M.—that would be darker—8 to 8:10.

Q. What time was it that you passed Chatham Point?

A. 7:07 P. M.

Q. Now, the next place where you made a sharp turn?

A. The next place at Dryad Point, Main Passage, 8 o'clock and 10 minutes P. M.

Q. Then you mentioned a third one?

MR. GORHAM: Pointer Island, that is.

THE WITNESS: That is before this—Pointer Island was 6:15 P. M.; Boat Bluff, that would be in North Passage 1:22 A. M.

Q. At the time that you passed the first point that you mentioned, Chatham Point, was it light enough so a barge could see the tug, or was it too dark for a barge to see the tug?

A. No, sir, a barge could see the tug all right.

Q. Now, when you passed the second point could the barge see the tug?

A. Yes, sir, she could see the tug.

Q. I didn't mean simply see the lights of the tug, but the tug itself.

A. She could see the tug at both of those places.

Q. And how about the third point?

A. She could see the tug; it was dark and squally, but she could see the tug as well as the light.

Q. She could see the tug when she made the turn?

A. Yes, sir.

Q. Do you know whether or not the helmsman on the barge steered in a course with the direction of the tug at those particular points—whether he put his helm the same way?

A. He followed the wake of the tug very good in those urns; I imagine the captain of the barge would be along- ide of the wheel in those places.

Q. When you made those turns you gave no signal?

A. No, sir.

Q. It wasn't necessary to give any signal?

A. No, it was not.

Q. Because the barge could see the tug?

A. Yes, sir.

Q. And the barge's pilot could follow in the wake of the ug?

A. Yes, sir.

Q. Now, you mentioned certain signals that were some- imes given—in fact always given—and you said you blew he whistle for an anchor signal, to let go of the towline and hings like that?

A. Yes, sir.

Q. What was the signal for anchoring?

A. I would not remember, your Honor, unless I looked t the card.

Q. Which card?

A. We have a card put up in the wheel-house, and the ifferent companies have different signal cards. For in- tance, we had Captain Griffith's signal card.

Q. Then the barge would have to have the same card?

A. Yes, sir, the barge had the same card.

Q. Then the barge had the same card that you did?

A. Yes, sir.

Q. And had the same signals on that card, of course, hat you had?

A. Yes, sir.

Q. And it was understood—the ship understood that hose were the signals that were to be given?

A. That was understood, Your Honor.

Q. And whatever the signal was on that card in your ilot-house for anchoring, it was understood that that was he signal to be used for anchoring?

A. Yes, sir.

Q. And also in signaling for letting go of the towline?

A. Yes, sir.

Q. What were the other signals on that card?

A. Oh, there were whistles for port and starboard, I hink, on the top of the card, and then there was a whistle or to give up steam, heave out 15 fathoms of chain, heave the chain, and several other things.

Q. So it was understood that the signals on that card ere the signals which were to be used by the tugboat and

the barge, and the barge understood them by virtue of h ing that card?

A. Yes, sir, if we gave any signals to the barge it w understood that they would refer to that card and act cordingly—I never spoke about the matter.

THE COURT: That is all.

Q. (By Mr. Gorham): A sharp blast of the whis other than a steam vessel, is universally a signal to port y helm, isn't it, or that the helm is to be ported?

A. For a crossing signal, yes, sir.

Q. (By Mr. Stratton): What do you mean by that?

A. If we see a vessel and there is no other way of co munication, we have those signals to indicate which side are going ot take.

QUESTIONS BY MR. GORHAM:

Q. One short blast of the whistle would mean that y are going to put your helm over to port?

A. Yes, sir.

Q. That is universal, isn't it?

A. Yes, sir, that is universal.

Q. Among all shipping people?

A. Yes, sir.

Q. All over the world?

A. Yes, sir.

QUESTIONS BY MR. STRATTON:

Q. (By Mr. Stratton): Would that apply, Capta when you are towing a barge, if you wanted to give a sig would that be the signal you would give if you wanted notify the barge that you were going to port your helm?

A. Yes, he would understand that unless there was a other vessel that we were meeting; I never blow any whis any time for the barge.

Q. Was there any arrangement as far as you know b tween the barge and the tug on this trip that the signals those Griffiths signals that happened to be on the two boa —would be used?

MR. GORHAM: Wait a minute, he is cross examinin his own witness now. The Court has already elicited wh those signals were.

THE COURT: He has a right to cross examine on wh the Court brings out.

Q. Was there any arrangement as far as you know b tween the barge and the tug on this trip that the Griffith

signals that happened to be on the two boats would be used?

A. I don't know that there was any special arrangement, but they generally understood it. I don't know that there was any special arrangement between Captain Johnson and Foster about using the Griffiths' signals, but those were the ones we always used.

Q. During that entire trip state whether or not at any time prior to the accident any signal had been given to the barge to port or starboard her helm.

A. No, sir, not any.

Q. The night of the accident before the shackle broke, what was the condition of the weather with respect to the ability of the man at the wheel on the barge to see the light—the range light on the tug?

A. Oh, I should say he could see them all the time.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. You don't know, do you?

A. I wasn't on the barge, but I imagine he could.

Q. Well, he couldn't during the snow squalls, could he?

A. Yes.

Q. Have a view of it?

A. Yes.

Q. Do you mean to say that through a snow squall you can see a thousand feet off?

A. I have seen snow squalls when you couldn't see across this room here, but I am talking about the squalls that we had there that night.

Q. The snow squall?

A. No, the snow squalls, I mean; and my judgment is based on this, that whenever I looked back at the barge I saw the barge.

Q. That may have been between squalls, might it not?

R. When I looked for the barge I saw her; there may have been times when if I had looked I could not see her—I don't know.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. How do the lights compare in size and color on the tug and on the barge?

A. Of course our lights were electric lights and they were white and they were stronger than his; a colored light does not show through muck as well as white.

Q. What kind of lights were on the barge?

A. A white and green light, and there was another light for a stern light—that was a white one.

Q. How did that light compare in size with the electric light on the tug?

A. It was like an ordinary lantern alongside of one of these electric globes.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. I want to ask you about the size of your hawser—what was it?

A. One and a quarter.

Q. What kind of hawser?

A. Steel hawser.

Q. What kind of steel—crucible steel?

A. It is what is called steel-wire hawser.

Q. Didn't you say the other day it was a crucible steel hawser?

A. No, sir, I never mentioned the name—it was steel hawser.

Q. What were the number of strands?

A. Six strands, 19 wires in each strand.

Q. How do you know?

A. Because that is what the dealers told us; I don't believe I ever counted the wires.

Q. Was it invoiced as crucible steel?

A. No, Mr. Gorham, we got it in Vancouver, and steel-wire hawser is all that was on the bill; we did not import it ourselves.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

(Court adjourned until 1:30 o'clock P. M.)

AFTERNOON SESSION,

NOVEMBER 13, 1917, 1:30 P. M.

CAPTAIN ANTONE J. BJERRE: On being recalled for further examination, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. I wish to recall you to make a correction. I wish you would take this logbook and make any corrections to the Court in your testimony in reference to the angles that you turned in making the trip prior to the time that you reached Tree Point. If you made any mistakes state to the Court what they were and what the corrections are. You figured it up on the stand there and there was an error?

A. Shall I take Dryad Point first?

Q. Take anyone you want.

A. I will take Chatham Point.

Q. What was the angle of the turn here?

A. The angle of the turn was from N. W. by N. to S. W. by W. ½ W., which is 7½ points.

Q. And that would be how many degrees?

A. Well, that would be 84:22:30.

Q. 84 degrees, 22 minutes, 30 seconds?

A. Yes.

Q. All right. Take the next one.

A. Pointer Island.

Q. What was the turn there?

A. Six points.

Q. (By Mr. Gorham): What day was that, please?

A. This was on March 24th.

Q. (By Mr. Stratton): Six points?

A. Six points.

Q. That would be how many degrees?

A. 67:30.

MR. GORHAM: Will you read the change in course at Pointer Island?

THE WITNESS: The change was from N. N. W. to W. The next point is Main Passage and Dryad Island. At Main Passage we changed from N. by E. ¼ E. to W. by N.

Q. How many points?

A. Eight points and a quarter.

Q. And that would be how many degrees?

A. That would be 92:48:45.

Q. A few degrees over a right angle?

A. Yes.

Q. Do you know whether any signals to port or starboard were given on those occasions to the barge?

A. Not any to my knowledge, no.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. Plenty of water there at Dryad Island for turning isn't there?

A. Oh, yes.

Q. When you turned did you put your wheel hard over suddenly or bring her around gradually?

A. No, I don't think the wheel was put hard over.

Q. Not suddenly.

A. Pretty well over, you know we figure a good turn there?

Q. But you put it over gradually?

A. I don't know how quick the helm was put over; there is not very much room there.

Q. You spoke about there being lots of room?

A. No, I didn't speak about sea room, I spoke about water.

Q. There is enough to make the turn gradually?

A. Enough to make the turn.

Q. Gradually?

A. We could make a sharper turn than we did—

Q. Was there room enough to make the turn gradually?

A. We didn't have to go exactly hard over—it is a pretty sharp turn.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

CAPTAIN FRANK JOHNSON: Upon being recalled as a witness on behalf of the Claimant, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. You were master of the tug Commodore last March?

A. Yes, sir.

Q. You have been sworn?

A. Yes.

Q. How long had you been master of the Commodore prior to last March?

A. About a year and a half.

Q. How long have you had master's papers?

A. About 11 years.

Q. Had you been master of any tug prior to being master of the Commodore?

A. Yes.

Q. What tug?

A. The tug Haro.

Q. Any other?

A. The tug Bell.

Q. Any other?

A. That is all, I think.

Q. How many years' experience, if any, had you had as a seafaring man prior to the time you got your master's papers?

A. I started in in 1897.

Q. How old are you?

A. 35.

Q. Prior now to the time you became a master, in what waters have you had experience as a seaman?

A. British Columbia coast and here in Alaska waters.

Q. Had you had any experience through Revillagigedo Channel prior to becoming master?

A. Yes.

Q. What experience?

A. Quartermaster.

Q. On what vessels?

A. Freight boats and towboats.

Q. Had you ever steered through Revillagigedo Channel prior to the time you became a master?

A. Yes, sir.

Q. How long were you on the boat where you acted as helmsman through that channel prior to the time you became master?

A. Six months.

Q. How often did you make trips during those six months through the channel?

A. About once a month.

Q. How many trips, approximately, did you make through Revillagigedo Channel with a towboat while you were master prior to last March?

A. I don't know the exact number.

Q. What is your best judgment?

A. Well, we were running from Anyox over here as high as four or five trips a month.

Q. And you were making those trips for how many months?

A. For a year and a half.

Q. Do you know what the speed of the vessel was between Lord Rock and Tree Point on the trip last March?

A. About 7 knots.

Q. Do you recall what hour you reached Tree Point?

A. 11:19 P. M.

Q. And what was your distance off from Tree Point at that time?

A. About half a mile to three-quarters.

Q. Did you see the light at Tree Point at that time?

A. Yes.

Q. How long did you see it—what was the character of the light you saw?

A. I just saw a glimpse of her for a few seconds.

Q. Did you take any bearings at that time?

A. We couldn't; we didn't have the light visible long enough to get any bearings.

Q. Now, you may start in and tell the Court in your own language everything that took place from the time you were abreast of Tree Point?

A. We was at Tree Point at 11:19 P. M., and steering along N. W. ½ W., until 1 o'clock, when we changed our course and slowed down to N. W. A few minutes before a quarter to two we seen a small island ahead of us and reported our helm two points to clear the island, and a few minutes after that the barge's shackle parted.

Q. What is the deviation of your compass?

A. Two degrees easterly.

Q. And do you know whether or not the compass was correct at that time?

A. Yes, it was correct.

Q. How do you know it was correct?

A. Because we had been running courses all the way up the coast on it, and it was adjusted by an expert in Vancouver.

Q. When?

A. In April—or February—two or three weeks before we left.

Q. And your course—did you keep a log?

A. A pilot-house log.

Q. I wish you would look at this log, and I will call your attention to the page marked "Libellant's Exhibit William T. Mahoney, Deputy Clerk," and I call your attention to the course, "11:19, Tree Point, N. W. ½ W."—what direction magnetic does that course take you?

A. N. W. 3/8 W.

Q. Now, I call your attention to the next line on the same page, "1 o'clock, changed, slowed down, N. W."—what course would that take you magnetic?

A. N. W. 1/8 W.

Q. What did you estimate the speed of the vessel at between 11:19 and 1 o'clock?

A. Between 7 and 8 knots.

Q. What did you estimate the speed of the vessel at between 1 o'clock and the time the shackle parted?

A. Five knots.

Q. Had you ever steered the same course before through the channel?

A. Yes, sir.

Q. Identically the same course?

A. Many times.

Q. What was the condition of the weather prior to reaching Port Simpson?

A. There was an easterly wind and snow squalls.

Q. Are there two courses passing Port Simpson coming north?

A. I forget what course we was coming up there—N. N. W., I guess.

Q. I mean two different routes?

A. Yes.

Q. Which one did you take?

A. We took the Port Simpson one.

Q. Why?

A. Because it was blowing an easterly wind and looked kind of snow squally.

Q. Did the direction of the wind have anything to do with your taking that course?

A. No; there was a little easterly wind and we thought that if we got up to Simpson we could get in before it.

Q. Did you put into Port Simpson?

A. No.

Q. Did you have any intention of putting into Port Simpson?

A. No.

Q. Who directed the course of the vessel that night?

A. I did.

Q. What, if any, towing of the Bangor had you done prior to the trip in March?

A. Towed her when she belonged to Thomas Griffiths & Sons, when she was operating around Anyox and Portland Canal.

Q. How long had you towed her—what was the extent of your towing her while Griffiths owned her, I mean?

A. I towed her with the Haro and the Commodore.

Q. How many trips?

A. Quite a few—I don't remember the exact number.

Q. Between what points did you tow her?

A. They call it Swamp Point and Anyox.

Q. Did that take you through the Revillagigedo Channel?

A. No.

Q. During any of the time you have been towing the Bangor while she was owned by Griffiths state what, if any, signals you ever gave to the Bangor to port or starboard her helm?

A. No, we never gave none.

Q. Do you know what the general custom prior to last March was in reference to a tugboat giving to a barge any signals to port or starboard her helm in Alaskan waters and through Revillagigedo Channel?

A. Not customary.

Q. State whether or not you knew who the owner of the Bangor was before you commenced to make this trip in March?

A. Well, I met him just a few days before that.

Q. Met who?

A. Mr. Mylroie.

Q. Did you know that he was the owner of the barge at that time?

A. Yes.

Q. Did you know from whom he had bought her?

A. Yes.

Q. Had you ever met Captain Foster before this trip?

A. Yes.

Q. Under what circumstances—where was he, I mean—what was he doing?

A. I met him in Vancouver a few years ago.

Q. Had you ever met him prior to this time when he was master of the Bangor?

A. No.

Q. On any of the Griffiths boats?

A. No.

Q. At the time you picked up the barge on the 22nd did you know who the master was?

A. Well, I heard in Vancouver that he was on her, and when I went to pick the barge up I seen him.

Q. Did you have any talk with him that night at the time you picked up the barge?

A. No.

Q. When was the first time you saw him to talk to him?

A. On the barge there.

Q. Where?

A. Forward.

Q. Where was the barge?

A. At Turn Point.

Q. How far was your tug away from her then?

A. We ran up close to her; another tug was towing them up for us to pick them up.

Q. Who shackled the barge to the towline?
A. Captain Foster.
Q. About what time of night was it?
A. I think it was 7:10.
Q. Was it light or dark?
A. Just about getting dark.
Q. Was anything said at the time you pick them up about signals?
A. No.
Q. When, if ever, did you learn that the barge had one of these Griffiths' signal cards on board?
A. When we got to Ketchikan.
Q. Did you have one of the Griffiths' signal cards on the Commodore?
A. Yes.
Q. How did it happen that you had that aboard?
A. We were working for Griffiths; the Commodore was there, I think, over two years working for them.
Q. When any code of signals is arranged between the tug and the barge, who arranges the signals—who makes them—the tug or the tow?
A. The tug can make them or the barge can make them on that card they have there.
Q. What is that?
A. On this particular Griffiths' card either the barge or the tug can make signals.
Q. I mean what is the custom as to who gives the signal, going by the signal card where they are used?
A. Each company makes up their own, generally.
Q. Which company—what do you mean, the tug company or the barge company?
A. Yes, the tug company.
Q. Has your company a signal card?
A. Well, they are different signals from these.
Q. Did you make any arrangements between Captain Foster and yourself with reference to signals?
A. No, not until we got to Ketchikan.
Q. What was your intention with reference to getting up a code of signals, if you had any intention?
A. Well, when we got outside of Cape Spencer if we should need anything.
Q. And what was your intention with reference to getting up a code of signals with Captain Foster?

THE COURT: When? He has spoken about the time that they left Ketchikan, and after the time they left Ketchikan.

Q. Did you intend to get up a code of signals with Captain Foster to control your movements?

A. Yes.

Q. From Ketchikan out?

A. Yes.

Q. What was your reason for intending to get up a code of signals from Ketchikan on?

A. I didn't know he had one of these Griffiths' cards aboard there, and knowing that the barge had changed ownership I didn't think she would have them same signals.

Q. And when did you learn for the first time that she had that card aboard?

A. When we arrived at Ketchikan here.

Q. That was after the accident?

A. Yes, sir.

Q. State whether or not if you know, the signals used by different owners, when they have signals, are all the same or whether each company have their own signals?

A. Some of them have different signals.

Q. Now, the signals that your company had, were they printed?

A. I just forget; I haven't seen any of them for a while.

Q. Did those signals include any signals for a barge to port or starboard her helm?

A. I never used any.

Q. I say, did the signals that your company had include any signals for the tug to give to the barge to port or starboard her helm?

A. No.

Q. State whether or not at different times when you were towing you made special signals with the barge master?

A. Yes.

Q. On this trip previous to the time that the shackle broke, state whether or not the tug changed her course at right angles?

A. Before the shackle broke?

Q. Yes, before the shackle broke state whether or not on this trip there had been occasion to change the course of the vessel at right angles so that she would make a right angle turn?

A. Yes, a couple of times.

Q. Did you hear the testimony of Captain Bjerre on that point?

A. Yes.

Q. Was his statement last made true as to the angles?

A. Yes.

Q. At the time you first sighted the little island, at the

time you made the two point turn you have mentioned, how far was the island, in your opinion, away?

A. About half a mile.

Q. Where were you?

A. I was in the pilot-house.

Q. When did you go into the pilot-house?

A. Oh, I was in there from 6 o'clock the night before except going out putting the tow machine in automatic gear.

Q. About what time did you do that?

A. About half past eleven at night.

Q. What was your watch?

A. Six to twelve.

Q. When 12 o'clock arrived what did you do?

A. I stayed on watch.

Q. Why?

A. It looked kind of dirty, snow, blowing and raining.

Q. Who else was in the pilot-house with you? Was Captain Bjerre in the pilot-house?

A. Yes.

Q. When did he come in there?

A. He was in and out all night between six and twelve—he was in and out quite a lot, but he come in I should judge about 11 o'clock that night and stayed there all night.

Q. Was he out of the pilot-house at all between that time and the time the shackle broke?

A. No.

Q. What was he doing there?

A. Keeping a lookout.

Q. And how were the windows in the pilot-house?

A. Windows all around her.

Q. Were they open or closed?

A. Open.

Q. Who directed the movements of the vessel that night—who was navigating officer that night?

A. Both of us was.

Q. Who had charge of the navigation of the vessel?

A. I did.

Q. Was Captain Dawe in the pilot-house that night?

A. After 12 o'clock?

Q. Yes.

A. Yes.

Q. What time did he come in there?

A. Twelve o'clock.

Q. Was that his watch, commencing at that time?

A. Yes.

Q. How long did he stay there?

A. Between three-quarters of an hour and an hour—somewhere along there.

Q. Do you know where he went at that time after he left the pilot-house?

A. He went out to the towing machine.

Q. Who told him to go to the towing machine?

A. I told Captain Bjerre he had better leave and go down and look after it and give it a little oil.

Q. Did Captain Dawe come back into the pilot-house before the shackle broke, again?

A. No.

Q. Do you know where he was?

A. Yes.

Q. Where?

A. Down around the towing machine.

Q. You stated that you started the towing machine yourself at 11 o'clock?

A. Yes.

Q. Do you know whether or not the machine was in automatic and working properly between the time you started it in action up to the time the shackle broke?

A. Yes.

Q. Was it?

A. Yes.

Q. What is the purpose of the towing machine on the tug?

A. To keep a steady strain on the hawser all the time.

Q. When the shackle broke did you have any information as to the fact that something had happened?

A. Yes.

Q. And how long after the shackle broke did you get that information?

A. Oh, I got it right away.

Q. How did you know?

A. The way the towing machine was flying around.

Q. How different did the towing machine act after the shackle broke than before?

A. It ran very fast.

Q. When it runs fast what does it do?

A. Pulling it in.

Q. Does it make a noise when it runs fast?

A. It makes quite a racket.

Q. And how long after the shackle broke would you know from the sound of the towing machine that something was wrong—that something had parted?

A. I knew it right away.

Q. When you found out that something was wrong, what did you do, Captain Johnson?

A. Got in our hawser and turned around to see if we could pick up the barge again.

Q. Now, go back a little. Prior to 1 o'clock that night what, if any, signals did you give to the engine room?

A. I give a standby bell about a quarter to one.

Q. Had you seen any land before that or thought you saw any land before that?

A. We thought we saw some land.

Q. Where was it?

A. I didn't know whether it would be Duke Island or not; we just got a faint glimpse of it—we thought it was the land, anyway.

Q. From what part of the ship?

A. Port quarter.

Q. Did you have any discussion with Captain Bjerre at the time you thought you sighted the land there?

A. Yes.

Q. What was that conversation about?

A. We thought we saw that land there and we put it down as Duke Island.

Q. Is that all the conversation you had?

A. Yes.

Q. What did you do then?

A. We changed the course about 1 o'clock.

Q. Did you have any conversation with Captain Bjerre about changing your course?

A. Yes.

Q. When you gave the standby bell did you receive an answering bell in the pilot-house from the engine room?

A. Yes.

Q. Did you hear it?

A. Yes.

Q. Who else besides you and Captain Bjerre were in the pilot-house at the time the standby bell was given?

A. The quartermaster and the mate.

Q. The mate was Dawe?

A. Yes.

Q. Was he there when the answer from the engine room to the standby bell was given?

A. Yes.

Q. Was the bell loud enough so that the mate could have heard it?

A. You can both hear it and see it.

Q. How long after you gave the standby bell did you slow down?

A. About fifteen minutes.

Q. After you gave the standby bell what can you say with reference to the speed of the ship as compared with the speed it had been going previously?

A. Well, she eased down a little.

Q. What is the number of pounds of steam you keep up on the vessel ordinarily?

A. Her full pressure is 180 pounds.

Q. And when you give a standby bell what does the engineer do, if you know?

A. We generally give a standby bell so he can let the steam blow back.

Q. You mean let the pressure out?

A. The steam blow back, yes.

Q. And when you gave him the slow bell what was that—half speed or slow speed?

A. Half speed.

Q. Is half speed faster or slower than slow?

A. It is faster than slow.

Q. What did you figure the speed of the vessel was that night after one o'clock when you were running under slow speed?

A. Five knots.

Q. Now, how far did you figure you had run from Tree Point at the time you gave the slow bell at one o'clock?

A. About 12½ miles.

Q. How far did you figure you had run under the slow bell from one o'clock to 1:45?

A. About 3¾.

Q. Did you receive an answering bell from the engine-room to the bell that you gave to slow down?

A. Yes.

Q. Who was there at the time?

A. In the pilot house?

Q. Yes.

A. Captain Bjerre and the quartermaster.

Q. Was Captain Dawe there?

A. I don't think he was in there.

Q. Where did he go in the meantime?

A. To the towing machine.

Q. Now, when you found out that the shackle had broken, where did you go, if you went out of the pilot-house?

A. As soon as we heard the machine flying around I ran aft on the top deck.

Q. Where is the towing machine with reference to the aft part of the top deck?

A. It is a little underneath the over-hang of the house, the after end.

Q. Who did you see there?

A. I saw the mate.

Q. Where was he standing?

A. He was heaving in the line, the tow-line.

Q. Did you have a talk with Captain Dawe at that time at the towing machine?

A. I knew something was carried away or broke.

Q. Is there an electric signal on the Commodore on the aft part of the top deck that goes to the engine room to give signals to the engineer?

A. Yes, there is a telegraph there the same as there is in the wheel-house.

Q. What did you do when you went back and found something was broken?

A. I slowed her down.

Q. How did you slow her down?

A. With this telegraph signal.

Q. Did you get a reply?

A. Yes, right away.

Q. Then, what did you do?

A. Stopped.

Q. You gave the signal to the engineer to stop?

A. Yes.

Q. Did you get an answer to that signal?

A. Yes.

Q. Then what did you do?

A. Went at half speed ahead again.

Q. Did you get an answer to that?

A. Yes.

Q. After you gave the signal to stop why did you give the signal to go at half speed again?

A. If we stayed there the hawser would get in the propeller.

Q. Was there any turmoil or excitement at the time by anybody in the pilot-house, at the time the two point change was made?

A. No, sir.

Q. The time you sighted the island?

A. No.

Q. After the shackle broke what maneuvers did the ship make?

A. Went back to see if we couldn't get the hawser back on the barge again.

Q. What kind of a turn did you make the first time, to the left or right?

A. To the right.

Q. And did you see the barge in making that turn?

A. Well, I was aft there and had to run back to the wheel-house—yes, I saw her after that.

Q. Where was the barge after you made that turn with reference to the small island?

A. Right close to it.

Q. Where was the tug with reference to the small island when you were making that turn?

A. When we come around, the first turn around, this little island we seen was right there, and I had to get behind the barge; the wind was blowing and when it is blowing like that you must get behind the barge so you can give her the hawser.

Q. How close did the tug go to the barge when you were trying to put that hawser on it?

A. Right up on her very handy.

Q. Where were you at that time?

A. In the pilot-house.

Q. What occurred in the pilot-house when the vessel was headed to the island there?

A. We had to put her hard aport, full speed ahead, to get out of there.

Q. What did Captain Bjerre do?

A. He grabbed hold of the wheel and pulled her out of there.

Q. Did he say anything to the quartermaster then?

A. Yes, he said something.

Q. What did he say?

A. He said, "Lookout, you are too darned slow," or something like that.

Q. Who put the wheel over?

A. There was two of us at it.

Q. Was it put hard over at that time?

A. Yes.

Q. Was the wheel put hard aport at any time before the time you have just mentioned, that night?

A. No.

MR. GORHAM: I am going to make the same objection to your leading this witness—you have been leading him for a long time and I didn't like to interrupt you to object.

THE COURT: Yes, it is quite leading, Mr. Stratton.

Q. Did the tug have a patent sounder aboard?

A. No.

Q. Did it have a hand lead aboard?

A. Yes, we carry a hand lead.

Q. Did you use it that night?

A. No.

Q. Why?

A. Because it wouldn't do any good and it would be of no use.

Q. Do you know the international rules in reference to giving signals in fog, rain, mist, falling snow and heavy rain storms?

A. Yes.

Q. Were any fog signals given that night prior to the time the shackle broke?

A. Once in a while.

Q. When were they given?

A. When the rules call for them.

Q. Did you get any echoes that night?

A. No.

Q. Do you know why you didn't?

A. You wouldn't get them when you are so much off land, and anyway you couldn't get them with the wind that was blowing and the snow; when you are right up on top of land you might get them?

Q. How was the wind blowing when you were off Tree Point?

A. Well, it was kind of a southeast wind.

Q. With reference to velocity, what kind of a wind would you call it?

A. It was a nice, fresh breeze.

Q. Did it increase or decrease from that time on?

A. It increased.

Q. What was the condition of the weather from Tree Point up to the time the shackle broke?

A. It was freshening up from the southeast as we went along, snowing, raining, blowing and sleet.

Q. What kind of snow was it, continuous or intermittent?

A. No, there was intermissions between them.

Q. How far, if you know, is the wheel-house of the Commodore abaft the stem?

A. I don't know exactly—35 or 40 feet.

Q. Do you know whether or not there are any low obstructions on the tug in front of the wheel-house?

A. No, we look over all them things when we are in the wheel-house.

Q. What are those low obstructions?

A. Well, the anchor davit forward on the stem is the highest one, but we look over that too.

Q. Are there any bitts?

A. They are very low down.

Q. But there is a bitt there?

A. There is a big wooden pawl bitt forward a little inside of the rail.

Q. Is there any obstruction on the deck?

A. There is an anchor windlass.

Q. What, if any, effect does the location of those ob-

structions have in reference to a lookout on the deck of the vessel?

A. If a lookout was there he would have to be about 10 feet from the stem.

Q. Do you know what the custom was last March, and what it had been prior thereto, with reference to the location of a lookout on tugboats in southeastern Alaskan waters?

MR. GORHAM: We object to that because it does not appear that this witness has any knowledge of what they do on other steamboats; it is incompetent and irrelevant, and the law covers the matter so far as the location of a lookout is concerned.

THE COURT: I think he ought to be qualified as to some other tugboats or vessels.

MR. STRATTON: It would seem to me, your Honor, that a person who has had eleven years experience or more up in these waters ought to be qualified.

THE COURT: I think you had better qualify him.

Q. (By Mr. Stratton): I will ask you whether or not, Captain, from your experience in these waters, and investigation and knowledge, you know what the custom was with reference to the location of lookouts on tugboats?

MR. GORHAM: We object to that because from the knowledge he has he might be able to conclude what the custom was.

THE COURT: You can cross examine him on that.

MR. GORHAM: No, we have no desire to cross examine at this time.

THE COURT: He may answer the question.

Q. I will ask you whether or not, Captain, from your experience in these waters, and investigation and knowledge, you know what the custom was with reference to the location of a lookout on tugboats—yes or no—if you know what the custom was?

A. Yes.

Q. What was that custom?

A. Always keep them in the pilot-house.

Q. Where did you keep yours?

A. In the pilot-house.

Q. State whether or not you know prior to that time where other masters kept their lookouts on tugboats?

A. Oh, on some of the other boats that has got the wheel-house pretty well amidships with a forecastle-head they might put their lookout up there.

Q. What vessels do you refer to?

A. Quite a few of them.

Q. You say those vessels have a forecastle head?

A. Yes.

Q. Has the Commodore a forecastle head?

A. No.

Q. And on those vessels where they kept their lookout on the forecastle head, how far back, if you know, was the wheel-house from the stem?

A. Oh, probably 75 to 100 feet.

Q. What character of boats were those?

A. Freight boats.

Q. Why did you have the lookout in the wheel-house rather than down at the stem of the boat?

A. Well, the stem of the boat would not be any good on a tug.

Q. Why wouldn't it be any good?

A. Because you cannot get close enough to the bow; he has got the big bitt there and davit to look over, and the windless is in the way.

Q. Where can a lookout see best from on a tugboat?

A. In the pilot-house.

Q. Where can he hear best from?

A. In the pilot-house.

Q. On that night how were the windows?

A. Four of them open.

Q. Where were they located?

A. One is right on the side and the other is on the round of the house.

Q. State whether or not it is possible to accurately determine the speed of a towboat when she is towing a barge?

A. Well, not right to a hair, you cannot.

Q. Did you ever use a taffrail log in southeastern Alaskan waters?

A. No.

Q. Do you know what the custom is in reference to using that kind of a log?

A. Never use them inside.

Q. Why?

A. Too many currents, tides and obstructions in the water, and they foul—they get foul of the hawser, or something.

Q. With whom, if anybody, did you consult that night with reference to laying out your courses?

A. Where from?

Q. From Tree Point north.

A. Captain Bjerre and myself were both laying it out.

Q. What, if anything, was there to indicate that you were off your course?

A. Where from?

Q. At the time the shackle broke what, if anything, had occurred prior to that time to give you any information that you were off your course?

A. Two or three little things that might have put us off.

Q. Prior to the time the shackle broke, or prior to the time you sighted the small island, did you know that you were off your course?

A. No.

Q. Captain, to what do you attribute your getting off the course that night and getting in half a mile from the island?

A. It might have been the tide and the wind threw us over that way all the time, or we might have been a little further off Tree Point than what we figured on, or there might have been some other things that threw us over there.

Q. Do you know, Captain, whether or not other tug boats have found themselves close to that island in making that trip in the night time?

A. Yes, I have heard them say—

MR. GORHAM: We object to any hearsay.

Q. Have you any personal knowledge of it?

A. No.

Q. Did you have a tide table aboard the vessel or the tug that night?

A. Yes.

Q. Who consulted it, if anybody?

A. I did.

Q. Did you know on that night what the stage of the tide was and when it was high at Mary Island?

A. Yes.

Q. What, if anything, do you know concerning the currents in that channel?

A. There is not any current there.

Q. Did you ever encounter any current there one way or the other?

A. No.

Q. Is there any other thing that you have not mentioned that you could attribute the tug getting off her course to?

A. Unless there might have been some unknown currents or something.

Q. I will ask you whether or not a tow has any influence on the course of a tug?

A. If the barge ain't steering good it will influence her some.

Q. How far off Mary Island do you figure you were when you were abreast the Mary Island light on the courses that you were taking?

A. About a mile.

Q. What explanation do you have for the breaking of the shackle that night?

A. Well, I don't know what broke it—it couldn't have been any good.

Q. Have you noticed the towline when it is towing a barge, for instance?

A. Yes.

Q. What does it do, if anything?

A. It has always got a quiver on it, shaking a little all the time.

Q. What effect does that have upon the shackle—I mean does that quivering and vibration extend to the shackle?

A. Yes, and through the chain, too.

Q. How long had that towline that you were using that night been used?

A. About a year and a half, I think.

Q. What, if anything, did the barometer on your tug indicate that night?

A. Well, it was steady then.

Q. What would that indicate?

A. It was down pretty low because it was a low set glass.

Q. What does that mean, down pretty low—does it indicate good weather, bad weather, changeable weather, or what?

A. It don't always come down with bad weather—snow will sometimes bring it down—snow, heavy fogs, and rain brings them down.

Q. When you hauled off when you sighted the small island how many points did you haul off?

A. Two points.

Q. What was your belief as to the location of the vessel at the time you sighted the small island?

A. We believed we were out in the channel.

Q. How long was it after you made the change in course of two points that you heard the towing machine operating fast?

A. Well, I couldn't state the exact number of minutes—it was a few minutes.

Q. Captain, under the weather conditions existing that night how far in your opinion could the Mary Island light have been seen?

A. Well, I don't know; we couldn't see it.

Q. You don't know because you could not see it. When did you first see the Mary Island light?

A. After we turned around the first time, I think, after the barge broke away.

Q. Was the moon visible that night?

A. No.

Q. I will show you Libellant's Exhibit 2, William Mahoney, Deputy Clerk, and I will ask you in whose handwriting that page is in, commencing, "6:35, Lucy Island!"

A. It is mine.

Q. When was that course put down?

A. That island?

Q. Yes.

A. 6:35.

Q. Whose handwriting is this line, "7:15, Hodgson Reef, N. N. W.?"

A. Mine.

Q. When was that put down?

A. At 7:15.

Q. I show you the next line, "8:48, Pointer Rock, W. ½ N.," whose handwriting is that?

A. My handwriting.

Q. When was that put down?

A. 8:48.

Q. The next line, "10:28, Lord Rock, W. by N." whose handwriting is that?

A. That is mine.

Q. When was that put down?

A. At 10:28.

Q. The next is, "11:19, Tree Point, N. W. ½ W." whose handwriting is that in?

A. That is my handwriting.

Q. When was that put down?

A. 11:19.

Q. The next one, "1:00, changed, slowed down, N. W." whose handwriting is that?

A. Mine.

Q. When was that put down?

A. 1 o'clock.

Q. The next one, "1:45, barge broke away," whose handwriting is that?

A. Mine.

Q. When was that put down?

A. That was put down sometime after that.

Q. Why wasn't it put down at 1:45?

A. We were too busy.

Q. The next line, "7:35 anchored Mary Island," who put that down?

A. I did.

Q. What time?

A. At 7:35.

Q. How long after 1:45 did you make the entry, "Barge broke away"?

A. I don't know—I was too busy.

Q. Is there any notation in this logbook of the two point change that was made a few minutes before the shackle broke?

A. No, that isn't in there.

Q. Explain to the Court how that happened?

A. We was getting too close to the island at that time, and I thought I would let it go until we got to the Mary Island light and I would put them both down together, but I got the time.

Q. What explanation do you make of that?

A. I was going to put it down when we came to the Mary Island lighthouse, it was dirty and I didn't want to keep the electric light on in the wheel-house too long.

Q. Did you get the time?

A. I got the time, I turned on the light, got the time, and turned it right off again.

Q. What are you speaking of, the entry 1:45, barge broke away?

A. Yes.

Q. When did you say that entry was made?

A. Sometime in the morning when we anchored or was running around, I don't know which.

Q. I am speaking about the two point change you made when you sighted the small island—does that change appear in the logbook?

A. No.

Q. Why?

A. Because we were too close to the island—and it was dirty, and everything.

Q. And how does it occur that that change does not appear at all in the logbook?

A. That is why, I guess.

Q. Why didn't you put it down when you put down—

A. When we anchored at Mary Island, or when I put down the other I guess it slipped my mind.

Q. Now, I will ask you whether, in your opinion, if the shackle had not carried away that night the barge would have piled up on the island?

A. If it had not broke?

A. No, the barge would not have piled up on the island

Q. Yes.

or went inside of it.

Q. Did you hear the horn at Mary Island light that night?

A. No.

Q. Did you hear it at any time after the shackle broke?

A. No.

Q. Do you know why? What in your opinion is the reason that you did not hear it?

A. From where?

Q. From any place you were—you say you didn't hear it at all.

A. There was so much wind blowing that we wouldn't hear it.

Q. How far is a safe distance off Mary Island for navigation?

A. About half a mile, or a quarter of a mile will do it.

Q. I will ask you if your logbook shows the hour that you picked up the barge when you first got her at the boundry line?

A. 7:10.

Q. P. M.?

A. 7:10 P. M. on March 22nd.

Q. Now, I want to call your attention to that page marked Libellant's Exhibit 2, William Mahoney, Deputy Clerk, where it says, "Voyage March 25th—16," what does that 16 mean?

A It is an error in the year.

Q. It should have been what?

A. 17. That is a 1916 book that we had been marking our courses in on some other trips that we made and that is the way we got it down, I suppose.

Q. Are you familiar with the working of a towing machine?

A. Yes.

Q. What kind of a strain, if there was any strain, was

put on the shackle and towing machine by reason of the two point change you have testified to?

A. Didn't make any more.

Q. Any more than what?

A. Than what she was on a straight course.

Q. If there had been a change in the course of 90 degrees on the part of the tug, and if the barge had not put her helm to port at all, state whether that would create a greater strain or a less strain than if the barge had ported her helm?

A. If she had ported her helm she would have slackened her line.

Q. And what would that occasion with reference to strain?

A. It would put an extra strain on it.

Q. Would that strain be greater or less than if the barge did not port her helm?

A. It would be less if she did not port.

Q. Now, I will ask you whether or not the barge at the two point turn went as close or closer to the island than the tug was at the time the tug made the turn?

A. No.

Q. Did the barge go as close as the tug was?

A. No, she would not go quite as close.

Q. Explain that to the Court.

A. Well, the hawser would pull them out; if it changed over a couple of points the hawser would pull her with it.

Q. And what is the fact with reference to the barge getting closer to the island than the tug if you had made a 90 degree turn when you sighted the island?

A. The barge would carry herself on; the tug, if you hauled her up, she would use her way a little, but the barge would still carry herself on.

Q. But would the barge get as close to the island as the tug?

A. You mean if you put her hard over?

Q. No. Take a piece of paper, Captain, and draw a little diagram. Now, on this little diagram M and I represent Mary Island; A represents the little island; T represents the tug; B represents the barge. Now, if the tug had put her helm hard over so as to make a 90 degree turn and the barge had not put her helm aport, I will ask you whether or not the barge would have gotten any closer to the island than the tug was?

A. No, she would not get any closer.

Q. Mark on there the course of the tug if you put your helm hard over so as to make a 90 degree turn.

A. She would have to turn and make a circle.

Q. All right, mark it on there, the course of the tug if you put your helm hard over and kept it there until she made the 90 degree turn to this course she was just pursuing.

A. She would take this turn.

Q. That turn would be a line T-Y-O, would it?

A. Yes.

Q. Where would the barge come?

A. Come up off here and then come around.

Q. So the barge would make the line B-M-C?

A. Yes.

MR. STRATTON: We offer that in evidence.

THE COURT: If there is no objection it will be received.

MR. GORHAM: No objection.

(Whereupon said drawing was received in evidence and marked Claimant's Exhibit No. 25).

MR. STRATTON: That is all, you may cross examine.

CROSS EXAMINATION

BY MR. GORHAM:

Q. I wish you would state in degrees east or west of north what the course N. W. ½ W. is?

A. With the two degrees?

Q. N. W. ½ W., what is that in degrees east or west of north?

A. 48: 37: 30.

Q. Now, if you were pursuing a course of north 5 degrees on your compass with this deviation of two degrees to the east, you would be pursuing a course magnetic of N. 7 degrees, wouldn't you?

A. I don't quite catch that.

Q. If you were pursuing on your tug a course of N. 5 degrees W. on your compass, the tug Commodore's compass, that course would be N. 7 degrees W., wouldn't it magnetic; if you were pursuing by your compass card on the tug Commodore a course N. 5 degrees W. what would that course be magnetic taking into consideration the deviation of the compass?

A. Three degrees.

Q. It would be three degrees, would it?

A. Yes.

Q. In other words if this is north and according to your compass you have a deviation to the east, then when you are going N. 5 degrees west you deduct the two degrees, do you?

A. Yes.

Q. You are sure of that, are you?

A. Yes.

Q. That is the deviation to the east, is it?

A. Yes.

Q. What do you mean by deviation?

A. I will see if I can give you the definition of it.

Q. Just tell it in your own way—tell what deviation is in a compass.

A. Deviation is how much east or west of magnetic the compass is.

Q. If the deviation is two degrees east, then in your opinion two degrees east of magnetic—

A. Two degrees is to the left.

Q. It will show your north point on your compass card two degrees east of magnetic, won't it?

A. I don't quite get hold of that.

Q. That is a simple question, Captain.

A. I know they are simple, but they ain't simple if you are tangled up a bit.

Q. Take your time. It will show your north point on your compass card two degrees east of magnetic, won't it—you can answer that question.

A. I can answer it, but I have got tangled up.

Q. I wish you would answer it.

A. It is to the left of it.

Q. What is to the left of it?

A. The two degrees variation.

Q. What is to the left of it? You say it is to the left of it. What is to the left of it—do you know?

A. I ain't got hold of the question very good, I guess.

Q. Don't you understand the question?

A. No, I don't understand it yet.

Q. All right, I will give you the question again then, Captain. If your deviation is two degrees east then the compass point north is how many degrees east or west of magnetic?

A. It is two degrees east.

Q. It is two degrees east of magnetic?

A. West of magnetic.

Q. It is two degrees west of magnetic?

A. Yes.

Q. Now, which is it, Captain?

A. West.

Q. So that if you have a course of N. 5 degrees W. on your compass what is the course magneetic with the deviation of two degrees—do you know that?

A. Yes, I know.

Q. What is it in degrees—the compass card reads N. 5 degrees W.—what is the magnetic course with a deviation of two degrees to the east?

A. It would be 7, of course.

Q. Then you add, don't you, your deviation—is that right?

A. Yes.

Q. You add your deviation. In the course you took of N. W. ½W., did you add your deviation?

A. No, I took it off on there.

Q. Will you find out, now, from your understanding as to how you worked it out in figures, what the course of N.W. ½ W. is with two degrees deviation to the east, what the magnetic course is in degrees?

A. That is 52-37: 30.

Q. Which, east or west of north?

A. West.

Q. Then I understand you to say—

A. The magnetic course, did you say?

Q. It is the magnetic course I want—is that right—is that magnetic?

A. Yes.

Q. Then, I understand you to testify that N.W. ½W. on a compass with a two degree deviation to the east put into degrees magnetic is N. 52—

A. No, I have done that wrong.

Q. Well, get it right, that is what I want?

A. 48: 37: 30.

Q. But you told me that when your compass was 5 degrees west of north that the magnetic would be 7 degrees?

A. I know I did.

Q. With a deviation of 2 degrees to the east?

A. Yes.

Q. It is 7, is it?

A. Yes.

Q. Then, why don't you add to the N.W. ½W. course two degrees?

A. That is the course you want to steer, ain't it?

Q. I didn't say anything about steering—I haven't used that word—I am trying to find out what the magnetic

course is in degrees of N.W. ½W., your compass having a two degree easterly deviation?

A. That is 48: 37: 30.

Q. Which, east or west?

A. West.

Q. You stand on that, do you?

A. Yes.

Q. You are certain about it?

A. Yes.

Q. You know you are correct?

A. Yes.

Q. Why don't you add two degrees if your compass deviates two degrees from the magnetic north—do you know why?

A. I cannot get hold of that at all today.

Q. You don't know whether it is deducted or added, do you, Captain?

A. Yes, I know it.

Q. If you know why don't you tell me if it is added or subtracted?

A. What is that now?

Q. Your deviation on a westerly course from north reduced to degrees magnetic—do you add that deviation or deduct it?

A. You add it.

Q. Now, you have shifted back to the adding. Then it would not be 48, would it, 48: 37: 30W., would it, if you add it? You deducted it to make 48: 37: 30W.—now, which is it added or deducted?

A. It is added.

Q. Are you certain it is added?

A. Well, if she is north and she has got two degrees easterly—north 2 degrees west.

Q. Then you add it; what would be the magnetic course in degrees of N.W. ½W., your compass having a two degree variation to the east—give us the result—do you know?

A. I haven't got it figured out in degrees yet—N.W. ½W?

Q. Have you reached the conclusion, Captain?

A. I have got it 52.

Q. Is it 52: 37: 30?

A. Yes.

Q. Is that correct?

A. Yes.

Q. You are satisfied now that it is correct in y own mind?

MR. STRATTON: I don't believe the witness und stands the question yet.

MR. GORHAM: He hasn't said he did not understa it and I have asked him if he understood it, and he been given every opportunity to understand it—the langua has been plain enough and he has had some 15 minutes think it out.

THE WITNESS: I am working it out in points.

Q. Never mind the points—I want the degrees. N I want you to translate into degrees east or west of no the magnetic course of N.W. 3/8W. on that same piece paper?

A. I cannot get that 3/8 of a point.

Q. You cannot turn three-eighths of a point into grees, is that what you mean to testify to?

A. Oh, I can do it in time.

Q. I wish you would do it?

THE COURT: How much is there in a point?

MR. GORHAM: Eleven degrees and fifteen minu if the Court please.

Q. Have you got it, Captain?

A. Not yet—I got tangled up with that three-eigh racket.

Q. Did you get it?

A. I cannot quite get it.

Q. What have you got—any result at all?

A. I have got 49.

Q. 49 what?

A. 49 degrees.

Q. What else, any minutes or seconds?—are you read

A. No, I ain't got it yet.

Q. If you cannot do it, say so, Captain, and if you c do it let us have the result.

A. It is just 3/8 of the 11:15—I know how to work th degree racket, but I got mixed up a little—that is as ne as I can get it, 49:22.

Q. And then what is the difference between the fi course you had in degrees, north 52: 37: 30W. and N. 49: —what is that, N. 49: 22W?

A. Yes.

Q. What is the difference between N. 52: 37: 30 W. and N. 49: 22 W. in degrees, minutes and seconds?

A. 3: 15: 10.

Q. Where do you get your 10? It is N. 52: 37: 30—that was your first course?

A. Oh, yes.

Q. Now, the difference between those two courses is 3 degrees 15 minutes 30 seconds?

A. Twenty seconds.

Q. You said 30?

A. Twenty—I said 3—15—20.

Q. You said 3: 15: 30?

A. You asked me to take 4: 22: 10 from that.

Q. No, I didn't say that. I said take 49: 22 from that. I am taking your course. Now, what are your figures?

A. I have got 10.

Q. Then the magnetic N.W. 3/8W. is 49: 22: 10, is it—is that right?

A. Yes, it is near it.

Q. How near is it?

A. I see it now.

Q. Is it right?

A. Well, it is near it, anyway.

Q. Don't you know whether it is correct or not?

A. Yes.

Q. Then the difference between those two courses is 3 degrees 15 minutes and 20 seconds—is it—is that right?

A. Yes.

Q. Now, if you steered your ship by your compass card N.W. ½W., as you testified you had your compass course there, and were steering your ship from Tree Point on that compass course, then you were, according to your calculation, 3 degree, 15 minutes, 20 seconds—

A. Wait—I see it.

Q. West of N.W. 3/8W. magnetic, that is right, isn't it?

A. According to these figures here (referring to paper in witness' hand.)

Q. Is that right?

A. No.

Q. What is it, then—I want it correct?

A. Two degrees would make it—

Q. You have told me N.W. 3/8W. according to your deviation is 52: 37: 30.

A. Northwest 3/8 west?

Q. Yes; N.W. 3/8 W. magnetic without any deviation

you stated would be 49 degrees, 22 minutes, 10 seconds, that right?

A. No.

Q. What would it be, do you know? I am asking wh is magnetic N.W. 3/8W.—what is it in degrees, without a reference to your compass card or anything else exc the magnetic? Is that right, 49 degrees, 22 minutes, seconds?

A. I haven't got the 3/8 of a point.

Q. You haven't got it yet?

A. The 3/8 of a point.

Q. I asked you to work it out and you said you had Why did you say you had it if you didn't have it right

A. It isn't right, I know it.

Q. Can't you do it?

A. It doesn't tally right.

Q. Haven't you the ability to do it, Captain?

A. Sometimes.

Q. If you haven't the ability to do it say so; if you h the ability to do it, do it.

A. It is a long time since I have done that work; never use it on the boat.

Q. I didn't ask you that question. It is a simple ma in almost elementary arithmetic—now you say you ne do it—are you able to do it?

A. It would take me sometime to do it.

Q. How long would it take you to do it?

A. Quite a while.

Q. How long?

A. I don't know.

Q. You have been at it half an hour now. Would take you an hour, or a day, or how long a time—eno for the Bangor to get piled up on Mary Island after leav Tree Point?

A. That wouldn't help the Bangor any.

Q. I want to know what difference there is betw those two courses in degrees, minutes and seconds—c you figure it out?

A. It has got to come to 2 degrees difference anyw

Q. I want you to give me the degrees, minutes a seconds in each course. You have given me the first cou Now, what is the degrees, minutes and seconds in the s ond course magnetic N.W. 3/8 W.?

A. I am all mixed up now altogether.

Q. You cannot do it, can you, Captain Johnson?

A. I have got it all tangled up now.

Q. There is nothing to be tangled up about. Northwest 3/8 west magnetic can be reduced to degrees, minutes and seconds.

A. Yes, I know it can.

Q. Why don't you frankly state to the Court why you cannot do it?

A. I can do it.

Q. Well, do it. You are taking a great deal of time. I want you to demonstrate either that you can do it or that you cannot do it, one way or the other.

A. I am getting worse instead of getting better now.

Q. I don't want to keep pestering you, Captain Johnson. I have given you since twenty minutes to four and it is now 10 minutes past four—half an hour. Will you frankly state to the Court whether you can do that or cannot do it?

A. I can do it.

Q. Then why don't you do it?

A. Because I have got it tangled up here somewhere, and I cannot get it to come right.

THE COURT: I don't think I can lose any more time. Ask him another question.

Q. Now, Captain Johnson, you say that N.W. ½W. on your compass, allowing for the deviation, is the same as N.W. 3/8 W. magnetic, is that right?

A. Yes.

Q. Now, tell me the time you made the entry in your log-book on March 26, 1917, which reads "one o'clock, changed, slowed down."

A. One o'clock.

Q. You made that at one o'clock, did you?

A. Yes.

Q. You made the change in course at one o'clock; did you make this entry in the log-book at one o'clock?

A. Yes.

Q. At the time you changed your course?

A. Yes.

Q. Are you sure about that?

A. Sure.

Q. Was your deposition taken in this case last June?

A. Yes.

Q. Did you testify at that time that that entry was not made until after the breaking away of the shackle?

A. I testified both ways, before and after, I know.

Q. You testified at the time of the taking of the deposition that it was made both before and after?

A. Yes.

Q. You testified both ways, did you?

A. Both ways, yes, but I have thought it over since.

Q. Oh, you have thought it over since?

A. I know what it was now.

Q. That was in June. That deposition was taken on the 11th and 12th days of June. Why is your memory better now than it was then?

A. Well, I said I changed at one, and I said I didn't change at one—both ways.

Q. No, it is not in the deposition both ways; it is only one way. Weren't you asked this question: "Go ahead and tell what happened just after you picked up the island. Were you asked that question?

A. I guess so, if it is there.

Q. And did you answer: "We changed our course a half point before we picked up the island. I guess it was one o'clock." Did you make that answer?

A. I guess so.

Q. Was this question asked you: "Question by Mr. Gorham: Now you said in answer to a former question by Mr. Cosgrove so far as that entry on March 26th, one o'clock, is concerned '1:00 changed, slowed down' that was the change you made at one o'clock and not the entry? And you answered: "Slowed down, changed at one o'clock." And you were asked, "And that entry was made after that sometime on that same day?" And you said, "Yes." Is that right?

A. I said both ways I know.

Q. I am asking you now—

A. If it is in there I guess I did.

Q. And you were asked, "How long, Captain?" And you said, "A few minutes."

A. I guess so.

Q. And you were asked, "Was it before the barge got adrift?" And you answered, "No." Is that right?

A. I thought I was talking about the 1:45 entry.

Q. It states the one o'clock entry.

A. I know, but I have got them mixed up.

Q. And the question by Mr. Cosgrove as follows: "But you said that you had made that entry in the pilot house, didn't you?" And you answered, "Yes." And you were then asked, "How long after the course was changed? Are you sure it was after the barge went adrift?" And you answered, "Yes. I turned the light on quick to get the

time on the log book, then looked out to see if everything was alright." And that was before the barge went adrift?

A. I was referring to the 1:45 o'clock entry.

Q. When your especial attention was called to the one o'clock entry. You say that you and Captain Bjerre laid out these courses—when did you lay them out—at the time of entering the courses?

A. As we went along.

Q. When did you lay out the course from Tree Point?

A. Before we got there.

Q. How long before you got there?

A. Before we got to Lord Rocks.

Q. How long before you reached Tree Point was that, do you remember? It says here in the log book, "Lord Rocks, 10: 28."

A. Yes.

Q. Tree Point, 11: 19?

A. Yes.

Q. When did you write that Tree Point, 11: 19—before you got to Lord Rock?

A. A few minutes.

Q. A few minutes before you got to Lord Rocks you wrote out the course for Tree Point; and when did you write out the course from Tree Point north?

A. From Tree Point? When we got near it—when we picked it up.

Q. When you picked up the light?

A. Yes.

Q. Then you laid out this course of N.W. ½W. from Tree Point north, is that right?

A. Yes.

Q. Have you got a chart room on that tug?

A. The chart room is in the wheel-house.

Q. Of what does the chart room consist in the wheel-house?

A. A small table—a table that folds against the wall.

Q. It is a shelf, isn't it?

A. It works on a hinge and has a leg underneath it.

Q. And you and Captain Bjerre studied over that chart to lay out that course, did you?

A. Yes, sir.

Q. And when did you lay out the next course from 1 o'clock on, when you changed?

A. The 1 o'clock change?

Q. Yes.

A. At the same time.

Q. At the time of the change?

A. Yes.
Q. And where was your chart then?
A. In the wheelroom.
Q. On that little shelf or table?
A. Yes.
Q. And you and Captain Bjerre laid out that co too, did you?
A. Yes.
Q. Both together—he was assisting you and you assisting him, is that right?
A. Yes.
Q. How long were you in laying out that cours 1 o'clock?
A. Not so long.
Q. How long?
A. Half a minute.
Q. And while you were laying out that course, you Captain Bjerre—you were laying it out together on chart, weren't you?
A. No.
Q. With your parallel rulers?
A. No, in between.
Q. In between what?
A. He was laying it out while I was laying out of window.
Q. Then you would go to the chart and he would and look out of the window, is that the idea?
A. Not on that one; I think he laid that one out self.
Q. You think he laid that one out himself, the 1 o'c course?
A. Yes, sir, but I am not sure now.
Q. Did you testify when your depositions were t in town in this case that you did not want to go into S son that night?
A. I don't remember whether I did or not.
Q. Did you testify in this language, when you w questioned during that deposition: "Q. Didn't you at time think it advisable to go in?" And you answe "Well, no. We hauled up that way in case it did come too bad we would have gone in there"—is that right?
A. Yes, if it came up too bad we would have gone i
Q. You went up there so in case it became too bad would go in there?
A. Yes, and something else too.
Q. I am not asking you that; I am asking you if

went up there so in case it became too bad you would go in there?

A. If it became too thick with snow we could have dropped in there.

Q. I didn't ask you that. I asked you if you went in there for that purpose, for the purpose of availing yourself of that harbor of refuge if it became too thick?

A. Yes.

Q. You did?

A. Well, yes.

Q. And on page 51, didn't you testify as follows: "We were talking that over about going in there, that is why we hauled up towards Port Simpson in case the weather got any worse then we could go in and anchor?"

A. Yes, we could go in and anchor in there anywhere.

Q. Didn't you testify to that effect?

A. If it is there.

Q. Do you know whether you did testify that way or not?

A. Yes, I guess so.

Q. Is it true that you did haul up towards Port Simpson so if the weather got any worse you could go in and anchor?

A. We could get a place to anchor.

Q. I am not asking you that, if you did go in. I asked you if it is true that you did haul up towards Port Simpson so you could go in there and anchor if the weather got any worse?

A. No, I didn't.

Q. Then your former testimony is correct?

A. We went up there so if it got too bad.

Q. Now, did you haul up towards Port Simpson so in case the weather got any worse you could go in and anchor?

A. Yes.

Q. Was that the purpose of going up to Port Simpson?

A. Yes, that is one of the purposes.

Q. So your testimony in your direct examination is incorrect, isn't it?

A. I testified as to that before.

Q. Did you consider this matter with Captain Bjerre?

A. We talked it over.

Q. And didn't you testify at the former hearing, at the time of the taking of your deposition, on page 53: "Captain Bjerre and I considered when we were coming up towards Port Simpson that if it got worse we could go in, and it didn't get any worse so we kept on?"

A. I guess I did, if it is there.

Q. Is that true?

A. Yes.

Q. So that you and Captain Bjerre did consider, in going up to Port Simpson, that you could go in there and drop anchor if it got any worse?

A. We did go in there so if it got any thicker we could drop anchor.

Q. And were you asked this question on page 75: "Q. I understood you to testify that you hauled in close to Port Simpson for the reason that you intended if the weather got bad to haul in there for the night?" And you answered "Yes."

A. Yes.

Q. You so testified?

A. Yes.

Q. And was that true?

A. If it got bad in there—

Q. I am asking you if that was true.

A. Yes.

(Whereupon court adjourned until 9:30 tomorrow morning.)

MORNING SESSION,

NOVEMBER 14, 1917, 9: 30 A. M.

CAPTAIN FRANK JOHNSON: On the witness stand.

CROSS EXAMINATION (Cont'd.)

BY MR. GORHAM:

Q. Captain Johnson, witnesses for the claimant in this cause have testified on their examination that the distance from Tree Point half a mile off, to the little island, is 18 miles. I wish you would explain to the Court how you made 18 miles between 11:19 P. M. of March 25th and 1:45 A. M. of March 26th, if you were traveling at the rate of 7½ knots an hour for 12½ miles, and the balance of the way at 5 knots an hour.

A. We didn't make 18.

Q. But you were within half a mile of the island?

A. Yes.

Q. Why didn't she make 18?

A. You would make about 16¼ in that time.

Q. That is your calculation on her speed, but I am now taking the chart and showing where she started from and where she wound up.

MR. STRATTON: She did not go 18 miles, because the distance is—

MR. GORHAM: I wish that you would not suggest an answer to the witness.

MR. STRATTON: But you ought to make a fair statement of the facts—you are assuming that he went that distance, but there is no evidence that he went that distance.

THE COURT: This witness has not testified that it was 18 miles.

MR. GORHAM: Then I want to know how he made the distance between Tree Point and Mary Island in that time?

THE COURT: That was not your question.

MR. GORHAM: Then I will change the question, and I will withdraw all of my questions.

Q. I will ask you how far it is from Tree Point to the small island?

A. About 18 miles.

Q. When you say about what do you mean?

A. That is just rough.

Q. Just making rough guesses—that is what got us into trouble, Captain, was rough guesses—we want it accurate.

A. Give me the chart.

Q. This is Exhibit A. Now, from the little island to a half a mile off Tree Point—

A. You want a direct line to the island?

Q. A direct line to the little island.

A. 18.

Q. That is 18 miles to the island?

A. Yes.

Q. And you went within half a mile of the island?

A. Yes, 17½.

Q. 17½ miles. Now, what increase in distance would there be by reason of your two point change at 1 o'clock, going from Tree Point to the little island on two courses which formed an obtuse angle at the place of the change of course?

A. What would be the distance?

Q. What would be the extra distance—the shortest distance between two points is the shortest distance that connects them. You didn't run a straight line—you ran on two different courses; how much would those two different courses taken together increase the distance between those two points on that straight line?

A. I would have to draw it out again.
Q. Approximately how much?
A. That would be away outside of the little island, then.
Q. Approximately how much would it increase it in distance—I am not talking about being outside of the island?
A. Very little.
Q. That is a relative term—how much?
A. I would have to draw it out, you see.
Q. And if you were running 12½ miles at 7½ knots and 3¾ miles at 5 knots, that would not take you even 17½ miles, would it?
A. No.
Q. So there must be some error in your calculation as to your speed, isn't there?
A. There may have been a little.
Q. Enough to make up that difference?
A. Yes.
Q. What is the size of this anchor davit that is forward on the tug Commodore?
A. I guess about 4-inch shaft.
Q. And how high is it above the rail?
A. About 7 feet.
Q. What is it used for?
A. Swinging the anchor out over the top of the rail.
Q. Your anchor is kept in on the deck?
A. Yes.
Q. How heavy is your anchor?
A. About 1200 pounds.
Q. How do you swing that anchor by the use of that davit over the rail?
A. I connect the block onto the anchor, lift her up and swing her over.
Q. Who lifts it up?
A. A windlass.
Q. Automatic?
A. No, you turn the steam on it.
Q. Who does?
A. The engineer turns it on from the engine room.
Q. Then whenever the engineer turns the steam on from the engine room it takes the anchor and throws it over, does it?
A. No, there is another valve on the winch.
Q. Who operates it?
A. Whoever is putting the anchor over; there are generally two or three there.
Q. What are the bitts there for?
A. To tie up the tug to the wharf.

Q. How large are those bitts, Captain?

A. I don't know which bitts you mean.

Q. The forward bitts—the ones you just spoke of—the bitts in the stem of the vessel?

A. About 16 or 18 inches square.

Q. Now, did you have to have that size bitt to tie that vessel up to the dock?

A. It is all right to have it big.

Q. Of course, being there it can be used to tie the vessel up to the dock, but is it necessary to use such a heavy bitt as that to tie that vessel up to the dock?

A. Yes.

Q. It is?

A. It is not only used for that, but it is used in going alongside of barges or heavy scows, because you have to have something to make fast to.

Q. What size line is used on those bitts in making fast to scows?

A. All sizes, wire and everything else.

Q. What size hawser—Manilla hawser?

A. Manilla and wire both.

Q. What size Manilla hawser?

A. About 6 inches.

Q. No larger than that?

A. No—three-quarter inch wire.

Q. How does the wire or hawser leave the tug?

A. Over the rail, through a chock.

Q. The chock is on the rail, is it?

A. Yes.

Q. It doesn't lead out at the level of the deck?

A. No, it is forward a little further.

Q. Does it lead out through the bulwark there or over the rail?

A. Over the top of the bulwark with the chock on there.

Q. Are the bitts forward of the steam winch or aft?

A. The bitts are forward.

Q. How far aft from the stem is the aft end of the winch, the forward winch?

A. About 10 feet, I should say.

Q. From there to the booby hatch, the forward end of the booby hatch, how far is it?

A. I don't know exactly.

Q. What is the length of the booby hatch fore and aft?

A. I wouldn't say; I don't know exactly.

Q. What is the distance from the booby hatch to the forward end of the hatch forward of the pilot-house?

A. I don't know the number of feet.

Q. What is the length of this big hatch that I am speaking of, the aft end of that forward main hatch to the pilot house?

A. I don't know the number of feet at all.

Q. You say you didn't know you were off the course just before you caught sight of Mary Island?

A. Which course?

Q. Your course.

A. Well, we figured we was on it.

Q. You testified yesterday that just before sighting the island up to that time you did not know that you were off the course?

A. We figured we were on the course.

Q. And how many minutes was it after making your two point turn at Mary Island that the towing machine began to run away?

A. I don't know the exact number of minutes; it wasn't very long—a few minutes.

Q. A few minutes is a very indefinite term, Captain Johnson. Give us a better idea than that, if you can?

A. I didn't look at the clock, and don't know exactly the time.

Q. Was it two minutes, or fifteen minutes, ten minutes, three minutes or five minutes?

A. I don't know the exact number of minutes.

Q. But it was some perceptible number of minutes?

A. A few minutes, yes.

Q. How long was it in that operation of running away as you call it?

A. That is minutes again—I don't know the number of minutes.

Q. How fast does your automatic towing machine take in your line?

A. Depends on how fast you want to run it, of course.

Q. When she is running away, as you call it?

A. I don't know how fast she goes; she goes around pretty lively.

Q. How lively—that is, relatively?

A. I don't know the number of revolutions she makes.

Q. How many feet of line does she take in in a minute?

A. I don't know.

Q. Would you say that she would run in as much as 100 feet a minute, or ten feet a minute?

A. I don't know how many feet it would take in in a minute.

Q. And you don't know how long it would take to take in that 180 fathom hawser?

A. I don't know the number of minutes.

Q. Do you know how fast the automatic, when it is in action for the purpose of relieving the strain on the wire hawser, takes in the slack of the wire hawser under ordinary conditions?

A. I don't know how fast it turns over.

Q. How much does it take in at a time before it stops—how many feet of the line?

A. It lets out first.

Q. It has to let out first, doesn't it, before it will come back?

A. Yes.

Q. How much does it let out—how many feet?

A. I don't know the number of feet.

Q. Does it let out 10 feet, 100 feet, or 500 feet—what is it—give us some idea, Captain Johnson?

A. I don't know the number of feet—I didn't stand there with a ruler.

Q. You can approximate it, can't you?

A. No.

Q. Can you tell the difference by hearing the action of the automatic when it is letting out and when it is taking in?

A. Yes.

Q. Now, after this two point change in your course, could you tell it was letting out hawser first by the noise you heard?

A. No.

Q. And afterwards taking it in?

A. No.

Q. You couldn't tell that?

A. No, sir.

Q. But you say there is a difference?

A. There is a difference after this kind of a break.

Q. I didn't ask you that; I asked you if there is a difference in the sound of the noise or volume of the noise or character of the noise when you were letting the slack out or taking it in on that machine?

A. There is a little bit in the cough of it.

Q. You could tell that if you were listening, couldn't you?

A. Yes, if you were listening.

Q. Could you tell that night?

A. I wasn't listening to it; I was working.

Q. And you don't know, I understand you to say, how much of the line has to be reeled off when the automatic is in gear, before it begins to take in?

A. No, I don't know the exact number of feet.

Q. Would it be 50 feet, Captain, of the line?

A. I don't know; I ain't giving any figures; I ain't going to say, because I don't know.

Q. Would it be 500 feet?

A. No, it would not be 500 feet; if I said any number of feet it would only be a guess, because I don't know exactly.

Q. You say about 1 o'clock at the time you made the one-half point change, it cleared up on the port quarter of the tug?

A. At one?

Q. At 1 o'clock, the time you made the one-half point change?

A. You could see a faint glimpse of something.

Q. I am asking you if it did not clear up?

A. I didn't see it clear up.

Q. You didn't see it clear up?

A. It must have cleared up a little when we could see the land.

Q. When who could see it?

A. Captain Bjerre.

Q. Did you see it?

A. He told me, yes.

Q. I say did you see it?

A. Yes.

Q. Then it must have cleared up a little, mustn't it?

A. I got an outline of it.

Q. It was not raining, was it?

A. Yes, raining and sleeting.

Q. And you mean to say that on that dark night with no moon, in the month of March, in the Revillagigedo Channel, you could see five miles in the rain and sleet?

A. We caught a faint glimpse—it may have been something else, I cannot tell; you might imagine that you see something.

Q. Had you up to that time looked back to see the barge between 11:19 and 1 o'clock?

A. Yes.

Q. How often?

A. Oh, a few times—I don't know how many times.

Q. Had you done it as often as 50 times?

A. I don't know the number of times; it was only a matter of twisting your head, that was all.

Q. Had you done it 10 times?

A. I don't know the number of times—I just looked

back and I don't know the number of times that I looked back.

Q. In looking back to the barge when you were traveling on that first course from Tree Point at any time up to 1 o'clock, as you were looking back to the barge, could you see this 2300 candle power light at Tree Point?

A. No.

Q. You never saw it?

A. No.

Q. Didn't you see it after that?

A. No.

Q. It was too thick, wasn't it?

A. I guess it would be too thick, I did not see it.

Q. You were within the range of the light, weren't you?

A. Yes.

Q. And if you did not see it it must have been too thick?

A. Yes.

Q. And yet you could see—do you know the range of visibility of that light on Tree Point?

A. It will give it in the book, I guess.

Q. I said do you know it?

A. I don't know exactly.

Q. Well, approximately then if you don't know it exactly?

A. I could make a guess at it.

Q. I didn't ask you to guess.

A. I have to look at that chart or book to find that out.

Q. You don't know, do you?

A. Twelve or fourteen miles on a clear night.

Q. Isn't it 15 miles?

A. I don't know—I just made a guess at that.

Q. Now, if you could see a high outline, as you call it, over to your port quarter at that time of the night with that condition of weather that you say was prevailing from 5 miles away here, couldn't you see the Tree Point light, the 2300 candle power light, up to 12½ miles away from it?

A. Up there there may have been more snow, up around there.

Q. There may have been?

A. Yes, there must have been; the further up towards Portland Canal you go the more snow there is.

Q. Tree Point is not near the Portland Canal, is it?

A. It is near the mouth of it.

Q. How many miles from Tree Point to Portland Canal—you have been in there lots of times, so you have testified?

A. 12 or 13 miles.

Q. And do you think there was lots of snow every time you looked back?

A. Of course the easterly wind would be blowing it out of that canal over that way.

Q. How much coal did you have in your bunkers on that night?

A. A little over 200 tons.

Q. How much did you have on your deck?

A. About 210 or 20 tons all together.

Q. 210 or 20 tons all together?

A. Yes.

Q. Up to the 26th of March?

A. Yes.

Q. Now, this automatic towing device is a piece of machinery, isn't it?

A. Yes, it is a piece of machinery.

Q. And it is operated by the steam coming from the main boiler?

A. It comes from the engine room, yes.

Q. And when you want to put that in action, if the piece of machinery is cold how long does it take to warm up?

A. A few minutes.

Q. How many minutes?

A. It all depends on how quick you turn it on.

Q. Supposing the steam is turned into the cylinder?

A. You warm it up quick if you open the valve up quick but the steam will whistle through her and it is liable to burst something; when she is cold it takes a little time.

Q. Operating it skillfully and carefully how many minutes will it take to warm it up?

A. About three minutes.

Q. Didn't you testify last June that it would take 10 minutes to warm it up?

A. I don't know.

Q. Is it true that it would take 10 minutes to warm it up?

A. You can make it half an hour, if you want to.

Q. I am not asking you that; I am asking you in the ordinary operation of that machine how long would it take?

A. That is the only way you can get at it; just depends on how fast you turn the steam into it.

Q. Ordinarily when you haven't used it for a day and are going to use it under ordinary circumstances, when there is no immediate emergency, how long does it take to warm up the machine?

A. Three or four minutes.

Q. After the machine is warmed up how long does it take to put it into operation?

A. Half a minute.

Q. That is done with a valve, isn't it?

A. With a valve and a few extra gear, sure.

Q. Explain it to the Court, we are ignorant of that machine?

A. I am no engineer.

Q. You have seen it many times, and you have operated it, haven't you?

A. Yes.

Q. You have operated it yourself, haven't you?

A. Yes.

Q. How do you turn the steam into the machine?

A. There is a valve there.

Q. If the machine is already warmed up how do you get it into operation?

A. You throw in a cog-gear.

Q. How do you throw in the cog-gear?

A. By a little short lever.

Q. Then you throw in the steam where?

A. Put another lever the other way.

Q. And then the machine is in automatic operation, isn't it?

A. The steam is on it all the time you are doing this.

Q. Don't you throw the steam in with the second lever?

A. The steam is already in before you throw that in.

Q. How do you throw your steam in?

A. You have to take your brake off, and when you take your brake off the steam holds it, and you get all this automatic gear put in and then she works.

Q. Then she works up to a certain point and stops?

A. She don't work it, she holds it there with the steam.

Q. She holds what there with the steam?

A. Holds the hawser from running out.

Q. When does the hawser run out?

A. When a little strain comes it pulls it out.

Q. How many feet does it throw out—what number of feet is it set for?

A. I don't know the number of feet.

Q. It is set for a certain number of feet with pawls, isn't it?

A. I don't know the number of feet.

Q. But the pawls do set it, so the pawls automatically operate the machine and set the machine so it is rigid, don't they?

A. No, they work gradually on it.

Q. Do they work gradually for what the machine is set for, if it is set to run out so many feet?

A. You don't set it to run out any number of feet, it takes it out itself.

Q. How many feet have you got on your reel or on your drum?

A. It depends on how much hawser you have got out.

Q. Suppose you have 180 fathoms of hawser out, how much have you got on your drum?

A. About 20 fathoms left.

Q. And if you had a 200 fathom line out, would that all run out except 20 fathoms?

A. No.

Q. How much would run out?

A. I don't know the number of feet.

Q. But it wouldn't all run out, would it?

A. No, it wouldn't all run out.

Q. Why not?

A. Because the steam would stop it from all going out.

Q. And the pawls would automatically set the machine rigid, wouldn't they; after some of it had run out then the pawls would come out and automatically set it, wouldn't they?

A. When she starts to run out like this, this other business works another lift, it lifts the pawls and lets the steam into the gear—a little more steam.

Q. But you say the whole 20 fathoms would not run out?

A. The whole 20 fathoms will not run out, no; she will run out pretty well sometimes.

Q. But if it would not run out there is some reason why it doesn't run out—that is the point?

A. The steam stops it.

Q. Then it would have to have more steam before any more runs out?

A. It opens up the valve automatically, and when she has it all out it will bring it back again.

Q. Let us assume, Captain Johnson, that X is the quantity of wire that will run out; you say that it would not all run out, that there would be 20 fathoms left on the drum?

A. She may run out quite a lot sometimes.

Q. I know she may run out quite a lot sometimes, but I am talking about after she has run out this X quantity of feet—the steam has been exhausted then, hasn't it?

A. Exhausted, what is that?

Q. Have you used all your steam in your cylinder head at that time?

A. When she runs that much out?

Q. Yes.

A. No, there is more going in to cushion it, to stop it from going out too far.

Q. Then it begins to run in, does it?

A. No, she goes out so far.

Q. And then comes in again, does she, automatically?

A. Comes in when it gets beyond that strain, yes.

Q. How much does she come in?

A. She will come in to where she started to go out from.

Q. And that is all, isn't it—she won't run in any more?

A. It all depends; sometimes she will come in more than that.

Q. If she has a slack out 100 feet, or has 100 feet of line out, she cannot take in more than 100 feet of line, can she?

A. Yes.

Q. Automatically?

A. Yes.

Q. When she slacks out and lets out all that she is going to let out, don't the pawls set them?

A. Them pawls is on the lift.

Q. Don't they set?

A. They may and they may not.

Q. Don't they ordinarily set in the automatic operation of that machine, do you know?

A. Yes, I know how it works.

Q. Do they set?

A. I don't know what you mean by set.

Q. Sets the machine so it cannot run out any more?

A. No, the steam sets that, the cushion.

Q. Then if she has run out this quantity of feet, whatever it is, can she take back any more than that same amount?

A. It all depends.

Q. It depends upon what—what does it depend upon?

A. If she takes that back in again.

Q. And how much more—it doesn't take any more back in, does it?

A. Not unless it is broke.

Q. So she takes in just the same amount that she lets out?

A. Unless something is carried away.

Q. I mean when she operating ordinarily?

A. It keeps the same amount of strain on the hawser all the time, that is the way she works.

Q. I didn't ask you that; I said she takes in just as much as she lets out?

A. She keeps a steady strain on the hawser.

Q. Will you answer my question?

MR. STRATTON: You mean does she take in as much as she runs out when the strain is on?

MR. GORHAM: Automatically. I don't want you to examine this witness; this witness is very unwilling to answer my questions.

THE COURT: Put the question to him again.

Q. Does she take in just as much as she lets out?

A. If she is in proper working condition she keeps a steady strain on it.

MR. GORHAM: We move to strike that out as not responsive to the question.

THE COURT: Very well, strike the answer out. Now answer the question.

Q. Does she take in just as much as she lets out?

THE COURT: Answer that question.

THE WITNESS: Yes.

Q. Did you see Mr. Mylroie in Ketchikan about the 1st of April, 1917, after this accident?

A. I don't remember whether I did or not; sometime around there I saw him there in Ketchikan.

Q. Did you say that you don't know whether you did or not?

A. I don't know the date, I mean.

Q. How soon after the accident did you see him—did you first see him in Ketchikan?

A. I don't know whether—it was some few days, a week or so, I don't know how many days.

Q. Did you tell Mr. Mylroie at that time in Ketchikan when you saw him within this week, as you set the time that at the time of the accident you were not in the pilot house, but that you were off watch and in the bunk?

A. No.

Q. That is the time the shackle gave way?

A. No.

Q. You didn't make any such statement to him?

A. No.

Q. You made no such statement as that?
A. No.

MR. STRATTON: I object to the impeaching question that has just been put, and move to strike the answer, upon the ground that the question is not properly put, and it does not include the necessary elements to be included in an impeaching question. I did not comprehend the question when it was being asked—he has got to give the time, place, circumstances, persons present, and so on.

THE COURT: I think myself it ought to be a little more specific.

MR. GORHAM: I am trying to find the question in the record of the deposition that was taken, and in the meantime I will go on to another phase.

THE COURT: The question and answer will be stricken and you can come back to it later.

Q. What was the deviation of the Commodore's compass on March 25th and 26th, 1917, when the vessel was heading east in these waters?

MR. STRATTON: The vessel was not heading east.

THE COURT: Let the witness answer the question.

A. It would be a two degree easterly deviation.
Q. She would have a two degree easterly deviation when she was heading east?
A. Yes.
Q. What was her deviation when she was heading west?
A. Two degrees of easterly—I just forget the card: I have not seen it for quite a while. The course is there in the wheel-house and all you have to do is to look at it.
Q. On these compass courses you understand I am giving you the magnetic?
A. The magnetic?
Q. Yes. So when she was heading magnetic east she had a two degree easterly deviation, did she?
A. Yes.
Q. And when she was heading westerly magnetic she had a two degree easterly deviation, did she?
A. Yes.
Q. You are sure about that?
A. Yes.
Q. Now, when she was heading northeast magnetic what was her deviation?
A. I don't know; I haven't got the card now.

Q. And when she was heading magnetic southeast what was her deviation?

A. I don't know the number of degrees at all now—about two degrees northeast, somewhere around there.

Q. When she was heading east, compass direction, not magnetic, what was her deviation—when she was heading east according to her compass?

A. That is a westerly deviation there.

Q. How much?

A. I don't know—I am not sure what it was.

Q. And when she was heading according to her compass west, what was her deviation—I mean when she was heading west according to her compass?

A. It would be east one, two or three degrees.

Q. When she was heading north what was her deviation?

A. I don't think it was anything north.

Q. When she was heading north according to her compass what was her deviation?

A. I don't think there was any there—I don't know the number of degrees there.

Q. You don't know?

A. I haven't seen the card and I don't know what it is now.

Q. Did you at Ketchikan, on the 2nd day of April, 1917, on the dock just west of Beegle & Company's office, have a conversation with Mr. Mylroie and tell him these words: That at the time of the accident to the Bangor that you were off watch and in your bunk?

A. No.

Q. Or words to that effect?

A. No.

THE COURT: The persons present?

Q. No one else present but Mr. Mylroie?

A. No, I didn't.

Q. Did you make such a statement at that particular place on the 3rd day of April, no one else present, under the same circumstances?

A. No.

Q. Did you at any time make such a statement to Mr. Mylroie?

A. No—I was not in the bunk anyway.

Q. Now, are you familiar with the rules for the prevention of collisions at sea?

A. Yes.

Q. What do they require of the officer in charge of the

watch on a steam vessel in these waters with reference to the sounding of fog signals?

A. For fog signals?

Q. Yes.

A. For a steamer?

Q. Yes.

A. One long whistle.

Q. One long whistle?

A. About every two minutes.

Q. One long whistle about every two minutes?

A. About every minute.

Q. Which is it now, a minute or two minutes?

A. Well, you blow them as often as you like—half a minute, if you want to.

Q. I didn't ask you that question, Captain—I wish you would answer my questions?

A. About every minute.

Q. The rules require that you sound them every minute, do they?

A. Yes.

Q. Are you familiar with the rules?

A. Yes.

Q. When did you first see them?

A. Quite a while ago.

Q. How often did you sound your fog-whistle that night, going from Tree Point to Mary Island? You stated on your direct examination that you sounded it quite often?

A. When the snow was coming down heavy.

Q. How often?

A. I don't know how many times.

Q. Approximately how many times?

A. I don't know the number of times; I did not count them.

Q. Did you sound your fog-whistle between Tree Point and Mary Island once?

A. Yes.

Q. Did you sound it ten times?

A. I don't know how many times.

Q. Did you sound it at least five times?

A. I couldn't say the number of times; I am sure we blew it whenever it was necessary, when it gets dirty we blow it.

Q. And you couldn't say that you sounded it at least five times on that run?

A. Yes, I did that, I guess.

Q. Did you sound it at least ten times?

A. I don't know how many times.

Q. Could you say at least ten times, or only five?
A. No, it would be more than that.
Q. More than five, is that what you mean?
A. Yes.
Q. What was the mate doing down aft at the towing machine immediately after the two-point change of the course at Mary Island?
A. Down there looking after it; oiling her up, I guess.
Q. Now, Captain, this is a very important case and we don't want any guesses?
A. He was down there looking after it.
Q. Under the orders of whom?
A. Me.
Q. Did you give him any orders?
A. I told Captain Bjerre there.
Q. Under whose orders did he go down there?
A. His.
Q. Whose?
A. Captain Bjerre's.
Q. And when you saw him was it before or after the two-point change of course at Mary Island?
A. When I saw who?
Q. The mate,—was it before or after the shackle broke that you saw him at the machine?
A. Afterward.
Q. You were on the top deck?
A. Yes.
Q. How long afterwards was it?
A. After the two-point change?
Q. Yes.
A. A few minutes.
Q. How many minutes?
A. I don't know the number of minutes that would be from the time it broke away from the barge.
Q. Did you go out there before the barge broke away or afterwards?
A. Afterwards.
Q. You went out there after the barge broke away?
A. Yes.
Q. How could you tell the barge had broken away?
A. I could tell by the way the machine was flying around
Q. Is that the only way you could tell?
A. The only way we could tell for just those few seconds.
Q. Is that the only way you could tell?
A. Yes.
Q. No other way at all?

A. Not until you would get more way on the boat.
Q. How long would it take to get additional way on that
t when she dropped a load of that character?
A. Not very long.
Q. How long?
A. I don't know—a few minutes.
Q. It would not take more than a second, would it?
A. It would take more than a second.
Q. If she was going five knots an hour, with 180 fathoms
hawser out, towing the barge Bangor, with a thousand
s, and that hawser instantly snapped, and she was re-
ed of that load, her five knots an hour, or her speed,
ld increase instantly, would it not?
A. She would start a little shade right away, yes.
Q. Did you feel that shade?
A. No, you couldn't tell because it was too rough and
y.
Q. You could not tell from the feel of that tug boat
t the barge had broken away?
A. No, sir.
Q. So that you did not ascertain that the barge had
ken away, did you?
A. No.
Q. The speed of that tug was increased, wasn't it?
A. Yes.
Q. And you didn't notice it?
A. No.
Q. It would be increased instantly, wouldn't it?
A. No.
Q. If you were pulling 1000 tons along a smooth sur-
, and the connection of that load was instantly cut, you
ld go forward instantly, wouldn't you?
A. Yes, quite a little.
Q. A little?
A. Yes.
Q. Is that what you want the Court to understand?
A. Yes.
Q. Is that your idea of it?
A. It is.
Q. Now, when you got out there what was the mate
ng?
A. He was at the towing machine.
Q. What was he doing?
A. Standing by the towing machine.
Q. And what else was he doing besides standing by the
ing machine?
A. After the shackle broke?

Q. After you got out there?
A. He was heaving the wire in.
Q. He was heaving the wire in?
A. Looking after it—it was heaving itself in then.
Q. What was he doing?
A. He was standing by it, looking after it.
Q. What was there for him to see?
A. He would have to stop it when it come in, I suppose.
Q. Why?
A. It would keep going around forever if he didn't.
Q. Had he thrown in any levers to wind in that hawser?
A. A lever?
Q. Yes—had he done anything with that machine?
A. It would wind in itself.
Q. But you said that it would not take in any more than it let out?
A. Oh, it was broke off then.
Q. And when there is nothing on the other end it comes in the full length of the hawser, does it?
A. Yes.
Q. Then, after it comes in what happens to the machine? Does it keep on going and going and going?
A. Yes, it does, if there isn't anybody there to stop it.
Q. What makes it go?
A. The steam makes it go.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. What was the condition of the towing machine when you set it that night at 11:30 with reference to the steam being on or off,—whether the machine was warmed up or whether it was cold at that time?
A. At the first instance?
Q. At 11:30 I say.
A. The steam is on it all the time, most of the time.
Q. What was the condition of the machine with reference to being warm or cold when you set it going?
A. Why, it warmed it up.
Q. What warmed it up?
A. There is a steam valve right on the winch.
Q. Had it been warmed up before you set the automatic on, is what I am trying to get at?

A. It is always a little warm.

Q. Did you hear the testimony of Captain Bjerre yesterday about your having had some drinks here in Ketchikan last May?

A. Yes.

Q. You may just state the facts to the Court briefly on that.

MR. GORHAM: If the Court please, I desire to state at this time that the object of those questions was only to impeach Captain Bjerre when he said this young man was a prudent, careful, skillful master, and it was only for that purpose. I was not attempting to impeach this witness' character—only for the purpose of impeaching Captain Bjerre. I do not desire to drag into this case the affairs of this witness, and I only asked those questions for the purpose of impeaching Captain Bjerre.

THE COURT: Then the question is how far you impeached him.

MR. GORHAM: Captain Bjerre said he was not in condition to go on watch. I have no objection to counsel going into it, but I wanted to advise counsel of my purpose—that was all.

THE WITNESS: I was up town and had a couple of drinks, I suppose, and I was sitting in a house and we was supposed to be going out at a certain time—I forget what time it was—

Q. What time did you get here that morning?

A. I forget the time; about 10 o'clock, I think, and we was going out—

Q. Who was going out?

A. The boat was going out with the tow—

Q. When?

A. About 1 o'clock; and Captain Foster came up town and I met him, and he said there was something wrong with the donkey boiler on the barge and he would not get out until maybe tomorrow morning, so I said, "There is no use of me going down then; I have done all my entering and clearing, and one thing and another;" and I said, "There is no use of our going down if she don't go out before morning;" and in the meantime Captain Bjerre had some conversation with some party down here, and sent up a taxicab for me and I came down in the taxicab.

Q. Who came down with you?

A. Captain Foster.

Q. Was Captain Foster with you all the time you were up town?

A. Yes; so when I came back Captain Bjerre and I had a few words about being late or something, and I told him what Foster told me, that there was something the matter with the boiler and we would not get away before morning; so I jumped into the wheelhouse and took the wheel and hooked on to the barge myself—I was a long ways from being drunk.

Q. I will ask you whether or not before that time you were a drinking man?

A. No.

MR. GORHAM: We object to that, if your Honor please, as immaterial.

THE COURT: I think he ought to be allowed to testify to that as rebutting the presumption that otherwise might obtain from the testimony, that he was a drinking man.

Q. State what the extent of your use of intoxicating liquors was prior to last March, and what it has been since?

A. I take a drink once in a while, or maybe two, but I never get full.

Q. State how many times, if at all, you have ever been under the influence of liquor at all when you were in command of a ship.

A. No.

Q. That is not an answer.

A. None.

Q. What instruments were aboard the Commodore for the purpose of laying out and determining courses?

A. A parallel ruler and dividers, lead pencils—that is all we used, and the deviation card.

Q. And what else?

A. That is all.

Q. Could you take parallel rulers, these dividers and a deviation card and lay out a course without anything else?

A. Yes.

Q. Lay it out?

A. And a lead pencil.

Q. Here's a lead pencil.

A. And a chart.

Q. Oh, you have to have a chart, do you?

A. Yes.

Q. That is what I wanted to bring out. In the laying out of courses what do you use, in laying them out, points or degrees?

A. Points—the compass is in points and not in degrees.

Q. Is it necessary or customary or usual in laying out courses to figure on the number of degrees in an angle?

A. No.

Q. I wish you would take this new chart and lay out before the Court a compass course N. W. ½ W. from three-quarters of a mile off Tree Point to Mary Island?

MR. STRATTON: I offer this merely to show the ability of this witness to navigate that vessel and lay out courses.

Q. Take the magnetic course off the chart N.W. 3/8W., on Claimant's Exhibit No. 26, and lay it off one-half a mile from Tree Point.

(The witness does so).

Q. Now, mark one end of the line A and the other end of the line B, Captain.

(The witness so marks the map).

MR. STRATTON: We offer this map in evidence.

(Whereupon said map was received in evidence and marked Claimant's Exhibit No. 26).

Q. What is the deviation card you say you had aboard—what is it used for, I mean, Captain?

A. For correcting the courses—to take a course off the chart and get the deviation of it.

Q. Is that deviation the same regardless of the direction the boat is steering?

A. The same?

Q. Yes, is it identically the same deviation regardless of whether the boat is steering north, east, south or west?

A. No, it is different.

Q. And does the card show all of these differences?

A. Yes.

Q. Where do you keep the deviation card?

A. In the pilot-house.

Q. What is the custom in reference to all tugs and vessels carrying a deviation card?

A. They all carry them,—most of them, anyway.

Q. What was the speed of the vessel at the time the shackle broke—that is was it full speed, half speed, slow speed or what?

A. Half speed.

Q. And the speed of the vessel in going at half speed at that time would be what?

A. Five knots.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. Do you know who was in charge of the Bangor on the second trip in May that you referred to at Ketchikan the trip after the accident?

A. I don't know who was the skipper—Mr. Mylroie, I think.

Q. And the donkey engine on the Bangor had broken down?

A. At that time?

Q. Yes.

A. I just forget whether it was the first trip or that trip, now.

Q. Then if it was the first trip that the donkey engine had broken down there wasn't any occasion for delay on this second trip in May—there was not any occasion to delay the vessel on that account, was there?

A. I don't know which trip it was now.

Q. Now, Captain, I wish you would take that chart and show on it from half a mile off Tree Point a compass course N.W. ½W., allowing a deviation of 2 degrees easterly for the compass—do you understand that question?

A. N.W. ½W.?

Q. A compass course of N.W. ½W., allowing two degrees deviation to the east, of the compass?

A. It is already down there.

Q. Then, you testify that this course on Claimant's Exhibit No. 26, which you have marked A-B, is the compass course N.W. ½W., allowing 2 degrees easterly deviation for your compass?

A. That is the course that we would steer.

Q. I didn't ask you that question.

A. That is N.W. 3/8W.

Q. I didn't ask you that question. I asked you if you testified that this course on Claimant's Exhibit No. 26, which you have marked A-B is the compass course N.W. ½W. allowing 2 degrees easterly deviation for your compass?

A. Yes.

Q. They are identical courses, are they?
A. Yes.
Q. You are sure about that?
A. Yes.
Q. And if you were to lay out on this chart, Claimant's Exhibit No. 26, the compass course of the Commodore N.W. by W., allowing for an easterly deviation of 2 degrees, the line of that course would be identical with the line A-B on this Claimant's Exhibit No. 26?
A. Yes.

MR. GORHAM: That is all.

MR. STRATTON: That is all.

(WITNESS EXCUSED).

EDGAR R. SMITH: Called as a witness on behalf of the claimant, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. What is your name?
A. Edgar R. Smith.
Q. What is your business?
A. Engineer.
Q. What kind of an engineer?
A. General engineer.
Q. Have you ever studied marine engineering?
A. Yes, sir.
Q. Are you a marine engineer?
A. Yes, sir.
Q. How long have you been a marine engineer?
A. Since 1896.
Q. Were you chief engineer on the Commodore last March?
A. Yes, sir.
Q. Were you on the trip when she towed the Bangor, when the Bangor was wrecked on the island?
A. Yes, sir.
Q. What was your watch that night?
A. Six to twelve.
Q. Where were you after 12 o'clock?
A. I went off watch at 12 o'clock, and a few minutes afterwards went into my bunk.

Q. Did you go to sleep?

A. No.

Q. After 12 o'clock and before one o'clock state whether or not you heard any signals given from the pilot-house to the engine room?

A. After 12 and before one o'clock?

Q. Yes.

A. Yes; about one o'clock,—three-quarters of an hour to an hour after I went off watch I heard a signal given.

Q. Where was your bedroom with reference to the engine room?

A. It adjoins it—leads into the engine room.

Q. Was there any wall between you and the engine room?

A. Oh, yes, a wooden partition.

Q. Was there any opening between you and the engine room?

A. There is a door.

Q. Was it open or closed?

A. Closed.

Q. Did you know what signal that was that you heard?

A. No.

Q. What did you notice, if anything, after that signal was given?

A. I noticed shortly afterwards that the speed of the engine was decreasing.

Q. What will cause a decrease in the speed of the engine?

A. Reduction of pressure of the steam.

Q. When a signal to stand-by is given into the engine room, what does the engineer do?

A. He goes to the fireman and informs him to let the steam back a little.

Q. What do you mean by that?

A. He has got to go easy on his fires—let his fires burn down a little.

Q. What effect does that have, if any, upon the speed of the vessel?

A. A slackening tendency.

Q. After you heard that signal did you notice any difference in the speed of the vessel?

A. I did in the speed of the vessel, yes,—Well, not in the speed of the vessel, but I noticed a slackening of the speed of the engines.

Q. What effect, if any, does the lessening of the fire have upon the speed of the engine?

A. It lowers the steam and consequently the engines do not go as fast.

Q. And when the steam is allowed to go back by reason of a stand-by order, to what pressure does the steam diminish?

A. We generally reckon to let it go back to between 150 and 160.

Q. What is the usual pressure?

A. 180.

Q. Now, after this signal that you heard in the engine room, and after you noticed the speed of the vessel lessen, did you hear any other signal in the engine room?

A. I did.

Q. About how long after the first signal was given?

A. About a quarter of an hour.

Q. Tell the Court what, if anything, you noticed immediately afterwards.

A. I knew the engine was slowed down appreciably.

Q. How could you tell that?

A. By sound—by practice.

Q. Just explain more fully to the Court how you knew the engines were slowed down.

A. Well, the only way I can explain it, from practice I know the difference between the number of revolutions when she is going full speed, and I can tell whether those engines are going half speed, full speed or slow.

Q. Now, do you recall the shackle breaking that night?

A. Yes, sir.

Q. After the shackle broke,—very shortly after the shackle broke, a few minutes after, state whether or not you heard any other signals in the engine room?

A. Oh, yes.

Q. What were the first signals you heard, and how close were they together?

A. Oh, there was a succession of signals—very rapid.

Q. Do you know what signals they were?

A. No.

Q. Now, that night from Tree Point up to the time the shackle broke I will ask you whether or not you know whether the tug blew her whistles?

A. Yes.

Q. Do you know how many times?

A. No.

Q. Have you been in a position to observe what movement, if any, a towline and its connections will make while tug is towing a vessel?

A. Yes, sir.

Q. You may state to the Court what effect there is upon the hawser, shackle and anchor chain, if any, towing through the water.

A. There is considerable vibration going on all the time.

Q. How do you know that, Mr. Smith?

A. I can see it, and I have felt it.

Q. Who has charge of the automatic towing machine on the Commodore?

A. I have charge of it.

Q. Explain to the Court how it works when there is a strain on it, and when the strain is taken off, and all about it.

A. Well, the towing machine is an automatic gear; the steam is always on from the boiler to the towing machine on deck—that is a rule that we keep,—and there is a valve connected on to the towing machine. When the automatic gear is required to be put in motion, they will turn on a little steam and warm her up. After she is warmed up they will place the automatic gear in position and then take off the brake, having increased the opening of the valve after warming up to a position which is a working position for the machine, and then the machine is in automatic gear.

Q. What do you mean when it is in automatic gear—is it working then?

A. Then it is ready to work; it will pay out when it gets extra strain, and it will take that back again afterwards.

Q. What effect does the operation of the machine have, if any, in keeping the strain equalized?

A. Has a very good effect.

Q. What does it do?

A. There is a certain amount of resistance all the time going on. In the first place, there are four pawls connected on a disc. One of these pawls is called a disappearing pawl, and the other three each differ in shape and are fixed pawls. As the machine pays out—as the strain comes on she will loosen the disappearing pawl first and through paying out these worms that are attached to this disc will turn these pawls until it comes to the next pawl; that increases the valve opening, and if still more strain comes on it will go until it comes to the next pawl, and that increases the opening a little more; and so on until it comes to the fourth pawl.

Q. What would the machine do if the strain is entirely stopped? That is, for instance, if a shackle breaks when the barge is being towed?

A. She would run away.

Q. What do you mean by that?

A. It would work whichever way the lever was at the moment of the break.

Q. And if the automatic was on what would be the effect?

A. The machine would run away just the same.

Q. What effect would that have upon the hawser?

A. It would either heave the hawser in or let it go out altogether.

Q. If it heaved the hawser in and the strain was entirely released, how much of the hawser would be heaved in?

A. It would heave it all in.

Q. And what would be done to stop the heaving in, in that case, I mean?

A. Nothing could be done unless human aid was there.

Q. I mean if human aid was there what would be done?

A. He would close the steam on the stop valve by hand.

Q. And that would cause what?

A. Stopping of the machine.

Q. And if the machine had been stopped and the person looking after it wanted to heave in the hawser, what would he do?

A. Turn on the steam.

Q. Can the towing machine be regulated,—

A. Of course at that particular time knowing the machine was stopped, if he wished to heave the hawser in he would take out the automatic, naturally.

Q. And do what?

A. And then heave it in in an ordinary way, using a hand gear—hand levers.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. In other words, he would take it out of this automatic gear and the operation of these steam cushions, and heave it in on the drum by another lever?

A. Same lever.

Q. The same lever but without the gear?

A. Without the automatic gear; there is a lever attached to the hand gear, and the automatic gear is attached,—

Q. But if he didn't attach it at all then either the whole hawser would be heaved in or the whole hawser would be let out?

A. Yes.

Q. According to whichever way the lever was at the time it began to work?

A. At the time it broke.

Q. And if it broke when it was running out—when the automatic was paying out, if it broke at that time, then it would continue to run out?

A. No.

Q. What would it do then?

A. It would heave in.

Q. If it was running out at the time the shackle broke and the load parted then it would heave in?

A. It would heave in.

Q. If it was running in at the time the load broke it would pay out?

A. It would run out.

Q. Just the reverse?

A. Just the reverse.

A. When the strain comes on the towing machine, pulling the line out and taking it off the drum these wheels are working—these here two wheels on the disc where the paws are attached turning that way (illustrating) that is pulling the lever forward; and if it should break at that time when it is paying out the lever is in fall position, and as soon as it lost the strain the machine would heave in.

Q. And would continue to heave in until the entire hawser was in?

A. Yes, sir.

Q. And after the hawser was in it would still continue to revolve?

A. Still continue.

Q. Until it was shut off?

A. Until it was shut off by hand.

Q. On the other hand, if the automatic in action was taking in the slack at the time of the breaking of the shackle then the effect on the mechanical appliance there would be to pay out all of the hawser?

A. Exactly.

Q. All of it?

A. Yes, sir.

Q. When you are on the tug and get a stand-by bell from the pilot-house and you are in the engine room, what do you do?

A. Stand by.

Q. What do you mean by stand by?

A. Stand by the engine and prepare to move.

Q. To execute an order that may be given you from the pilot-house?

A. Yes, sir.

Q. When you are under way and you get a stand-by bell, what do you do then, if anything?

A. I prepare then for working the engines according to the telegraph.

Q. In other words, when you get from the pilot-house by the way of the telegraph a stand-by bell you may be below in your engine room or on the platform?

A. Yes, sir.

Q. If you are below you are away from your levers?

A. Yes.

Q. And your stand-by bell would bring you to your levers?

A. Exactly.

Q. And those levers are relatively close to your telegraph in the engine room so you can see the signals, are they not?

A. What?

Q. As you are on your platform near your lever, ready to move your lever, you can see that telegraph?

A. Yes.

Q. Then the stand-by bell if you are below would call you on to your platform?

A. On to my platform.

Q. Is that what you call it?

A. Yes.

Q. And you would be ready then instantly to go full speed ahead, or full speed astern, if the vessel was at that time going under full speed?

A. Yes, sir, I would.

Q. And if the vessel was at that time going full speed ahead you would be ready to go full speed astern?

A. Yes, sir.

Q. And that is what the stand-by bell is for?

A. The stand-by bell is for you to stand right there ready to act.

Q. And you would not know in getting a stand-by bell what the next signal would be, would you?

A. No.

Q. You would not know what the emergency of the tug was so far as the navigator is concerned in the pilot-house?

A. Not a bit.

Q. You had been on watch from six to twelve on the night of the 25th?

A. Yes, sir.

Q. That is the day immediately following the morning of the accident?

A. Yes, sir.

Q. And you had been on watch the morning of the 26th, from six to twelve?

A. Yes, sir.

Q. Had you been standing your watch up to that time?

A. All the time, sir.

Q. I mean you had no occasion to stand an extra watch?

A. No, sir.

Q. And at the end of your watch you turned your engine over to the second engineer?

A. That is right.

Q. And then if you desired you turned in?

A. Yes, sir.

Q. On this occasion you turned in?

A. I turned in.

Q. You were the next day required to go on watch at 6 o'clock?

A. Yes, sir.

Q. Did you lie in your bunk after going below?

A. Yes, sir.

Q. And you were off watch?

A. Yes, sir.

Q. How many fog signals did you hear?

A. I don't know whether I heard any.

MR. STRATTON: When?

MR. GORHAM: As he lay in his bunk.

Q. How is that?

A. I don't know whether I heard any.

Q. Do you know what a fog signal is?

A. Yes, sir.

Q. What is it?

A. Oh, I just know it is a whistle to be blown in fog from the pilot-house.

Q. How do you distinguish a fog whistle from any other whistle?

A. I presume it is from practice.

Q. Now, your towing machine is so arranged, is it not, that it takes a certain amount of the line in only?

A. Yes.

Q. How much line?

A. According to what has been paid out.

Q. And that is all?

A. That is all.

Q. If there has been 10 feet paid out it would take in 10 feet?

A. Exactly.

Q. Then it sets?

A. Yes.

Q. The pawls set it?

A. The pawls set it, put it in mid-position. Of course, that is under normal conditions.

Q. What do you mean by normal conditions?

A. When she is towing and the strain is on the machine all the time.

Q. What are the abnormal conditions?

A. When it broke away.

Q. Oh, after the load had been dropped then it would work differently?

A. Certainly.

Q. But it is after the load had broken away?

A. Yes.

Q. After the shackle broke I think you said there were several signals given to the engine room from the pilot-house?

A. There were.

Q. How do you determine that those several signals were given before or after the shackle broke?

A. Because immediately the shackle broke I knew instantly there was something wrong, and I jumped out of my bunk.

Q. How did you know?

A. By the towing machine running away.

Q. Only?

A. Only.

Q. No sudden impulse in the movement of the vessel?

A. No.

Q. That is, you didn't feel it?

A. I didn't feel it; the vibration of the towing machine on the deck where I was; I didn't feel any sudden movement of the vessel.

Q. Now, in ordinary movements in the maneuvers of a tug and a barge, when the movement of the barge is slackened for any reason—that is, the momentum, the momentum of the tug would be increased, would it not?

A. Naturally.

Q. And when a tug is towing a barge of the size of the Bangor, with its thousand tons of cargo, at the instant that load is dropped by the breaking of the shackle the momentum of the tug will increase?

A. Yes, sir.

Q. Instantly?

A. Instantly.

Q. What will be that increase, do you know, at that instant?

A. I couldn't say; just depends on how you were traveling before hand.

Q. If you were going along 5 knots an hour, what would be the increased momentum by the dropping of the load at the instant of dropping?

A. I could not tell you.

MR. GORHAM: That is all.

Q. (By Mr. Stratton): Would the velocity of the vessel after the shackle broke be immediately increased to a greater extent if the vessel were running 7½ knots an hour than it would if it were only running 5 miles an hour?

A. It would be increased faster.

MR. STRATTON: That is all.

QUESTIONS BY THE COURT:

Q. I do not quite understand, Mr. Smith,—you say that the speed of the vessel would increase by the releasing of the strain on it?

A. Yes.

Q. The dropping of the tow?

A. Yes.

Q. Did it in this case? When the shackle broke did the speed of the vessel increase?

A. It would do it in every case.

Q. Was it perceptible?

A. I wasn't there to see. I am sure it would, because any release of load, if she was pulling any, it would be increased.

Q. That is self-evident, but did you feel any increase?

A. No, I did not.

Q. How do you account for the fact that you did not feel any increase of speed?

A. At the same moment the increase of speed was going on the towing machine was going so rapidly and with the vibration of the towing machine I didn't feel any increased movement of the boat. The towing machine was right above my head, and all I could feel was the vibration of the towing machine; and that would go much faster than the increase in the boat that I didn't feel the increase,—we would come away faster, and the increase would be gradual.

THE COURT: That is all.

Q. (By Mr. Stratton): If a vessel were going 5 miles an hour, and a load such as the Bangor were released, from

your experience state whether or not there would be any sudden jump of the vessel so that it would be perceptible.

A. No.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. Now, at the time the strain of such a load as the barge Bangor and its cargo was released from that tug, if the tug was then going 5 knots an hour and continued thereafter to go 5 knots an hour, say, for a mile do you mean to say that the increased momentum would be gradual from the time of the break to a subsequent time?

A. Yes, sir.

Q. Would it not, as a matter of fact, be instant, and then a gradual decrease to its 5 miles an hour?

A. Certainly.

Q. Because when the tug had gotten this one mile in advance, it would then only be going 5 miles an hour?

A. That is all.

Q. So the increase would be sudden and simultaneous with the breaking of the load?

A. The increase would be greatest at the point where it broke.

Q. And it would be gradually increased thereafter?

A. Decreased thereafter.

MR. GORHAM: That is all.

(WITNESS EXCUSED).

SAM DAWE: Called as a witness on behalf of the defendant, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. What is your name?

A. Sam Dawe.

Q. What is your business?

A. Seafaring.

Q. How long have you been a seafaring man?

A. 14 years.

Q. Have you master's papers?

A. Yes.

Q. How long have you had them?

A. Seven years.

Q. What experience did you have as a seafaring man before you got your master's papers?

A. I was three years in sailing ships, and the rest of the time on the coast—British Columbia.

Q. What character of vessels?

A. Square rigged ships and steamers.

Q. On the coast of British Columbia?

A. Freight boats and tug-boats mostly.

Q. Where did you run on the tug boats?

A. Run around the coast of B. C. and Southeastern Alaska.

Q. What position did you hold on these tug boats while plying in Southeastern Alaska before you got master's papers?

A. Mate.

Q. As mate did you stand watch in the navigation of the vessel?

A. Yes.

Q. Since you became a master what experience have you had in the waters of Southeastern Alaska?

A. None whatever.

Q. Were you mate on the tug Commodore?

A. Yes.

Q. Did you make any trips in the waters of Southeastern Alaska while you were mate on the Commodore?

A. Yes.

Q. How many trips?

A. At least thirty.

Q. Did you go through the Revillagigedo Channel?

A. Yes.

Q. That many times?

A. Yes.

Q. Were those round trips?

A. Yes.

Q. And your position on the Commodore was—

A. Mate.

Q. When did you make these thirty trips as mate?

A. 1916,—I believe part of 1916, and part of 1915 and part of 1917.

Q. What vessels were you mate upon in making these thirty trips these last years?

A. Commodore.

Q. Who was master of the Commodore when you were mate?

A. There was three different men master of her during

the time—Captain Robertson, Captain Bjerre and Captain Johnson.

Q. How long were you mate under Captain Johnson as master of the Commodore?

A. 15 months.

Q. As mate have you stood watch in the navigation of the vessel through Revillagigedo Channel?

A. Yes.

Q. What hours of the day or night, or what time in reference to the day or night had you navigated the vessel through this channel coming north?

A. From 12 to 6, morning and evening.

Q. That would be from 12 o'clock midnight to 6 A. M.?

A. Yes.

Q. And from 12 o'clock noon to 6 P. M.?

A. Yes.

Q. Were you mate at the time that the Bangor went on to Mary Island?

A. Yes.

Q. What was your watch on that night, the night of the 25th and morning of the 26th of March?

A. 12 to 6.

Q. Were you on watch that night?

A. Yes.

Q. Now, just state what occurred from 12 o'clock on—what you saw and what you did, and what you heard,—I think that will save time.

A. I came on watch at 12 o'clock and went up to the wheel house, and Captain Bjerre and Captain Johnson and the quartermaster were in the wheel house at the time. I stayed there for probably three-quarters of an hour—or an hour—somewhere around there—and then Captain Bjerre told me to go and stand by the towing machine, and I went down and I stood by the towing machine; and after that—half an hour, or three-quarters of an hour, or somewhere along there—the vessel changed her course two or three points, and shortly after that I felt the hawser,—I had my hand on the hawser at the time I felt it carry away, and then the towing machine started to heave in, and I threw the machine out of the automatic gear and kept heaving the wire in; and Captain Johnson came back on the upper deck, and he asked me if anything carried away, and I told him yes, I thought it had, and he told me to heave in the line, so I hauled in the line and I told him our line had not carried away—it was all right at that time.

Q. How soon did Captain Johnson come to the aft part of the upper deck after the shackle broke?

A. Almost immediately.

Q. Do you know whether he gave any signals to the engine room while he was standing back there?

A. I couldn't say.

Q. While you were in the wheel house that night, before you went to the towing machine, do you know whether any signals were given to the engine room from the pilot-house?

A. There was a stand-by signal given while I was there.

Q. How long was that stand-by signal given before you went below and went to the towing machine?

A. Oh, 10 or 15 minutes, probably.

Q. Did you hear any answer in the pilot-house to that stand-by signal?

A. Yes.

Q. Did you notice any difference in the velocity of the vessel after that stand-by signal was given?

A. No, I did not.

Q. Would you be apt to notice it?

A. No.

Q. Did you hear any reply from the engine room to that stand-by signal?

A. Yes.

Q. Where were you at that time?

A. I was in the wheel-house at the time.

Q. Was the towing machine in automatic and ready to work when you arrived there?

A. Yes.

Q. Do you know who set it in motion?

A. I believe Captain Johnson.

Q. Do you know whether any fog signals were given that night?

A. Yes, sir, the whistle was blown; it blew during several heavy snow squalls we had.

Q. In your opinion, considering the condition of the wind and weather, and all conditions as they existed that night, was it possible to get an echo from Mary Island or from any other land prior to the time the shackle carried away and after leaving Tree Point?

A. No, I don't believe it was.

Q. Now, while you were mate and master do you know what the custom was in reference to giving a signal to a barge in tow to port or starboard her helm?

A. I never heard of any.

Q. Did you ever give any yourself?

A. No.

Q. Did any vessel that you were ever on give any?

A. No.

Q. Now, a few minutes before the shackle broke was there any change in the direction of the ship that you know of?

A. Yes, there was.

Q. To which direction did it change?

A. Changed to starboard.

Q. Do you know about how much she changed to starboard?

A. As near as I could judge two or three points.

Q. Where were you at the time of the change?

A. Standing by the towing machine.

Q. Could you see the hawser?

A. Yes.

Q. About how long was that before you noticed the shackle broke?

A. Two or three minutes.

Q. Do you know at what speed—I don't mean in miles, but I mean at full speed, half speed or slow speed, the tug was going at the time of this two point change?

A. It wasn't going full speed.

Q. Do you know at what time she changed from full speed to a slower speed?

A. About one o'clock, as near as I can tell.

Q. How do you know that her speed slowed down at that time?

A. Well, I could feel that she wasn't going full speed—I knew she wasn't going full speed.

Q. Where were you when you noticed she slowed down?

A. I was down below.

Q. Where do you mean?

A. At the towing machine.

Q. Where is the towing machine—on what deck?

A. It is on the lower deck—the main deck.

Q. Were you out in the open weather? Any covering or house over you?

A. I was under the over-hang of the upper house.

Q. But otherwise was there anything to obstruct sound or view from where you were standing?

A. There was nothing to obstruct the view aft, but there was forward.

Q. At the time the shackle broke was there any jump of the tug boat?

A. The only jump I noticed was the towing machine—I never noticed what the boat done at all.

Q. What did the towing machine do?

A. The towing machine started to heave in .

Q. Do you know what a towing machine is for?

A. It is to equalize the strain on the hawser when the automatic gear is in action, as far is I know.

Q. With that towing machine, if the tug changed her course two points, with a hawser 180 fathoms long, the one you had there that night, going 5 knots an hour, what, if any, additional strain would be put upon the hawser or shackle, assuming that the barge did not port her helm when the tug ported her helm and changed her course two points?

A. Very little.

Q. What would be the character of that strain—I mean would it be sudden or gradual?

A. No, it would be gradual.

Q. I wish you would take a piece of paper and show by a sketch what, from your actual experience and knowledge, the course of a barge would be, with 1080 feet of hawser, if the tug put her helm hard aport and continued that way until the tug became at right angles to her former course,—where a barge such as the Bangor, laden as she was that night, would be if she did not put her helm aport.

A. You mean the tug put her helm hard over?

Q. Yes.

A. And the barge just kept to her original course?

Q. The barge didn't do anything. I want you to show the track of the barge in reference to the track of the tug.

MR. GORHAM: With no reference to Mary Island?

MR. STRATTON: Oh, no.

Q. This B is the barge, and the tug is represented here with a towing machine. Now, the tug puts her helm hard aport and leaves it there until she makes a right angle turn to the right, the barge does not do anything with her helm at all. What will be the course of the tug and the course of the barge? Mark it on there.

(Witness so marks sketch.)

Q. The course of the tug will be the line C-D-E. Now, what will be the course of the barge?

A. The tug would gradually pull the barge and bring her around—would gradually pull her with her.

Q. And the course of the barge under those conditions would be B-F-G. Now, on the same piece of paper I wish you would give the course of the tug and the barge if the tug changed her course 2 points to the east—that is, ported her helm so that the tug went two or three points to the east and the barge did not port her helm.

A. The barge would follow along like this—not much difference.

Q. You say in that case the barge would come along almost in the wake of the tug?

A. Yes.

Q. Then the course of the tug would be M-N-O, and the course of the barge would be P-Q-R-S. State whether or not the barge would eventually fall into the wake of the tug?

A. Yes.

MR. STRATTON: We offer those two diagrams in evidence. The first is the one at the top, and the second the one at the bottom.

MR. GORHAM: No objection.

(Whereupon said sketch was received in evidence and marked Claimant's Exhibit No. 27.)

Q. In your experience in navigating and towing barges, and so on, I will ask you whether or not you have observed the course of barges and tugs under those conditions?

A. Yes, I have observed it to a certain extent.

MR. GORHAM: The conditions in your diagram?

MR. STRATTON: Yes.

Q. Who was in the pilot-house from 12 o'clock until you went down to the towing machine?

A. Captain Johnson, Captain Bjerre and the quartermaster.

Q. Who was navigating the ship?

A. Captain Johnson.

Q. Do you know who was in the pilot-house after you went down to the towing machine,—I mean of your own knowledge.

A. No, I do not.

Q. What maneuvers did the tug make, if you know, after the shackle broke?

A. Well, I couldn't say very well what maneuver she made—I wasn't in a position to see what she did.

Q. Did she stand still?

A. No; she kept circling around; I knew she was circling around by the change in the wind being sometimes on the port side and sometimes on the starboard side.

Q. Do you know what the condition of the compass was, on the boat, on that trip?

A. The compass was in good condition.

Q. How do you know that?

A. It was adjusted just a few days before we left Vancouver.

Q. You have personal knowledge of its being adjusted

A. Yes.

Q. Now, did you have aboard the Commodore an patent sounding machine?

A. No.

Q. Are they of any use on tugs at all in these waters

A. Not that I know of.

Q. Did you have a hand lead aboard?

A. Yes.

Q. Was it used?

A. Not that night.

Q. Was it practical to use it that night?

A. No, I don't think so.

Q. So far as you know was there any occasion to use it

A. No, I don't think so.

Q. Do you know what the condition of the weather wa at Simpson?

A. No.

Q. Or at Tree Point?

A. No.

Q. Do you know what the condition of the wind an weather was after 12 o'clock?

A. Yes, there was quite a hard breeze of wind from th southeast with snow squalls.

Q. Any rain?

A. Snow squalls and rain and sleet.

Q. How was the night, light or dark?

A. Dark.

Q. How was it in reference to ability to see land?

A. You couldn't see it very far that night.

Q. How far, if you know, is the wheel-house of th Commodore abaft the stem?

A. I don't know—between 30 and 40 feet, as far as know.

Q. What has been your custom as to the position of lookout?

MR. GORHAM: What do you mean by his custom?

MR. STRATTON: I mean what has been his practic

MR. GORHAM: While he was master of a tug?

MR. STRATTON: Yes.

MR. GORHAM: Has he said he has been master of tug?

Q. (By Mr. Stratton): Have you been master of any tug?

A. I am at the present time.

Q. How long have you been master of a tug?

A. Altogether about three years, I guess.

Q. Plying in what waters?

A. British Columbia.

Q. Have you plied in these waters as a master?

A. No.

Q. Do you know what the practice was on the tugs upon which you were employed, in Southeastern Alaska in reference to the position of a lookout?

A. Always in the wheel-house.

Q. And you have operated on how many tugs?

A. Oh, I have operated on,—well, at least half a dozen.

Q. When you are master where do you keep the lookout at night time?

MR. GORHAM: Wait,—unless it appears that it is in such waters as these—

Q. (By Mr. Stratton): On what waters have you operated while you were master?

A. British Columbia.

Q. How far north?

A. Never any farther than Alert Bay.

Q. Where is that in reference to Dixon's Entrance?

A. Oh, that is 300 or 400 miles from Dixon's Entrance, I guess.

Q. Which way?

A. To the southward.

Q. On the inland passage?

A. Yes.

Q. What has been your practice in those waters as to the position of your lookout on a dark night?

MR. GORHAM: We object to what they do between Vancouver and Dixon's Entrance—that is on the other side of Queen Charlotte Sound. And it has not been shown in what trade the tug was, whether towing logs or vessels or what.

Q. (By Mr. Stratton): While you were master, during the period of time I have just mentioned, while you were operating in British Columbia waters what were you towing?

A. Logs and scows.

MR. STRATTON: I now renew my question.

THE COURT: Is there any difference between the cir-

cumstances which would demand a lookout down there and those which would demand a lookout here?

MR. GORHAM: I think so, if the Court please. It has been stated here that this is one of the most dangerous of waters, in Revillagigedo Channel.

THE COURT: I think it would shed some light on the proposition, and it will be admitted for what it is worth.

MR. GORHAM: Exception.

A. Always in the wheel-house.

Q. Why have you kept them in the wheel-house?

A. Why, you can see and hear better from the wheel-house than you can from any other part of the tugboat.

Q. Do you know how far the tug was from the small island east of Mary Island at the time the two point change was made?

A. No.

Q. Do you know how far the tug was from the small island at the time the shackle broke?

A. No.

Q. I will ask you if you know what the custom has been while you have been operating on these waters in reference to the use of a log in the water for the purpose of determining the speed of a ship?

A. I have never seen any used in the inland waters.

Q. Now, from your experience I will ask you if you know what, if any, movement a tow line and shackle makes where the tow line, say, is 180 fathoms long, and the tow line is hooked on to a barge such as the Bangor, loaded as she was that night?

A. A certain amount of vibration all the time.

(Whereupon court adjourned until 1:30 P. M.)

AFTERNOON SESSION,

NOVEMBER 14, 1917, 1:30 P. M.

SAM DAWE: On the witness stand.

DIRECT EXAMINATION (Cont'd.)

BY MR. STRATTON:

Q. You stated you came into the pilot-house at what time that night?

A. Twelve o'clock.

Q. Did you notice the course the ship was steering at that time?

A. Captain Johnson told me the course.

Q. Did you look at the compass yourself to see?

A. No, I didn't.

Q. What course did he tell you the vessel was steering?

A. Northwest one-half west.

Q. Is that compass course or magnetic course?

A. Compass course.

Q. Do you know what the deviation of the compass was?

A. 2 degrees easterly on that course.

Q. Do you know how the bell cord of the Commodore comes up into the pilot-house?

A. Yes.

Q. Where does it come up?

A. It comes in over-head through the back of the pilot-house.

Q. Which way does the helmsman or quartermaster stand when he is steering the vessel—with his back to the back end of the ship or to the front end?

A. He is facing forward.

Q. How many handles are there attached to the whistle rope?

A. Two.

Q. Where are they located?

A. In the ceiling of the wheel-house, one on either side.

Q. Are they in the front or back?

A. Well, they are not right in the front part of the wheel-house—about three-quarters of the way forward, I would say.

Q. Are they in front of or behind the place the quartermaster stands while steering?

A. Almost abreast of him—probably a little behind.

Q. You say the whistle cord comes up along the back end of the wheel-house?

A. Comes in through the aft end of the wheel-house.

Q. From above or below?

A. The whistle is higher than the ceiling of the wheel-house, therefore it comes from above.

Q. Illustrate here—now, assuming we are in the wheel-house and we are looking here towards the forward end of the ship, illustrate on the wheel where the bell rope would come?

A. Probably would be about that height.

Q. About how high is that?

A. I don't know the height of the wheel-house—I don't know what height it is.

Q. How far from the ceiling does the bell rope come into the wheel-house?

A. A few inches.

Q. Then it branches out, does it?

A. Yes.

Q. And extends along the ceiling?

A. Yes.

Q. And then to about abreast or a little behind the helmsman?

A. Yes.

Q. And then they have handles down?

A. Yes.

Q. I will ask you whether or not the whistle must be pulled by either of the handles you have mentioned?

A. Yes.

Q. Could it be blown by pulling the rope along the ceiling where it comes in?

A. Yes, you could take hold of the rope and pull it anywhere, as far as that goes.

Q. On the Commodore do you know what the custom or practice is in reference to whistling? Do you know what part of the cord is taken hold of when you want to whistle?

A. Sometimes the handle and sometimes the other part of the cord.

Q. Suppose the man were looking out of the window where would he be apt to pull the bell rope or whistle cord?

A. He would probably take hold of the cord just behind where the handle comes through.

Q. When the shackle broke was there anything peculiar about the motion of the ship that you noticed?

A. When the tow line broke?

Q. When the shackle broke.

A. Nothing, except the towing machine started heaving—that is all I noticed.

Q. Do you know whether there were tide tables aboard the vessel that night?

A. Yes.

Q. Did you know at any time before the shackle broke that the vessel was off her intended course?

A. Yes, I knew she had changed her course a little.

Q. What time did you change your course, that you speak about now?

A. Just a few minutes before the shackle carried away.

Q. That was how many points, did you say?

A. As near as I could judge two or three points.

Q. Do you know whether the vessel changed her course at one o'clock or not?

A. No.

Q. If she changed her course only half a point at that time and you were out standing by the towing machine, would you have been apt to notice that slight change?

A. No.

Q. Was the land visible that night?

A. I never seen any.

Q. If the shackle had not broken that night would the barge have gone ashore?

A. I don't think so.

Q. Now, at any time before the shackle parted would it have been possible, in your opinion, taking into consideration the velocity of the wind, the condition of the atmosphere, the rain, sleet and snow, and all the conditions,—would it have been possible to have heard the horn at Mary Island light?

A. No, I don't think it would.

MR. GORHAM: Whereabouts,—at Tree Point?

MR. STRATTON: Why, at any time before 1:45.

Q. To what extent would a turn in the tug of 2 points make in the strain on the shackle, if the barge did not port her helm at the same time the tug did to make that 2 point change?

A. Well, the automatic gear working I don't think it would have made any strain at all.

Q. Would it, in your opinion, make any unusual or unreasonable or unsafe strain?

A. No.

Q. How about the strain on the shackle if the tug ported her helm, and kept her helm hard aport until an angle of 90 degrees had been made, and the barge did not port her helm?

A. Well, there would have been a little extra strain which would have been gradually taken up by the towing machine.

Q. Would that strain on the shackle be sudden or gradual?

A. Gradual.

Q. Now, in running a compass course from Tree Point northwest one-half west, taking into consideration a deviation of 2 degrees to the east, what would be the magnetic course?

A. Northwest 3/8 west.

Q. State whether or not you have run that course yourself on the Commodore?

A. Yes.

Q. How many times?

A. Not less than thirty round trips.

Q. Did you run that course clear through?

A. Yes.

Q. Clear through to Mary Island light?

A. Yes.

Q. In making that course that you say you have run about thirty times what was your compass course?

A. Northwest one-half west.

Q. After twelve o'clock that night I will ask you whether or not in your opinion the speed of the vessel under the existing conditions there was at all times moderate?

A. Yes, I believe it was.

Q. Who was on the look out while you were in the wheel-house that night?

A. Captain Bjerre and Captain Johnson.

Q. Do you know whether or not Captain Bjerre was keeping a sharp lookout all the time you were in the wheel-house?

A. Yes, he was.

Q. While you were in the pilot-house and before the standby bell was given, and about a quarter to one, as you have testified, state whether or not you heard any discussion on that point between Captain Bjerre and Captain Johnson?

MR. GORHAM: On what point?

MR. STRATTON: About giving a signal to stand-by.

A. Captain Bjerre asked Captain Johnson if he didn't think it would be well to slow the boat down a little.

Q. What did Johnson answer?

A. He said probably it would be a good idea.

Q. What did he do then? What did Johnson do?

A. He rang a stand-by.

Q. Were you in the pilot-house when Johnson gave the bell signal to slow down?

A. No.

Q. When you were out at the towing machine could you or could you not see the lights on the barge?

A. No, I never looked for the lights on the barge.

Q. Is there any forecastle-head on the Commodore?

A. No.

Q. While you were standing by the towing machine were you in the dark or in the clear of electric lights?

A. There were two electric lights right over my head.

Q. What effect would that have on your ability to see land, or lights on the barge?

A. It would blind me from seeing very far from the boat.

Q. Do you know whether or not there are any obstructions either to sight or sound to a person who is standing as a lookout in the pilot-house in looking out through the windows?

A. No.

Q. Are there any?

A. No.

Q. If a lookout were standing on the bow of the vessel what, if any, obstructions would there be to his sight and hearing?

A. Standing on the main deck of the vessel?

Q. Yes.

A. Keeping a lookout on the main deck of the vessel?

Q. Yes.

A. He would have to keep a lookout on the aft part of the forecastle-head, and he couldn't see over the bow from there unless he went to one side or the other.

THE COURT: You are speaking generally now, are you,--and not of the tug Commodore?

A. Yes, I am speaking of the Commodore.

Q. (By Mr. Stratton): Where would the lookout have to stand on the Commodore if he did not stay in pilot-house?

A. He would have to stand on the main deck.

Q. And what obstructions would there be, if any, to his sight and hearing?

A. Well, he couldn't hear very well for the wash of the boat through the water; and he couldn't see very well over the bow unless he went to one side or the other.

Q. And how far back from the stem would the lookout have to stand to keep a lookout?

A. Oh, somewheres in the neighborhood of 16 feet, as near as I can judge now—15 or 16 feet.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. Were you ever on a large vessel?

A. Yes, sir.

Q. Ever on a full rigged ship?

A. Yes, sir.

Q. Where does the lookout stay on a full rigged ship?

A. On the forecastle-head.

Q. And he passes from one side to the other, doesn't he, of the vessel, during his watch?

A. Yes, sir.

Q. Looks out on one side and then on the other?

A. Yes, sir.

Q. And if you were coming up on a steamer,—if you were on the forward end of the vessel and you were coming up Revillagigedo Channel and knew you were off your course you would come over on your port bow, wouldn't you—a good lookout would, wouldn't he?

A. How does the lookout know whether he is off the course or not? He is not a navigator.

Q. If he knew?

A. How would he know?

Q. I am asking you if he knew, then what would he do?

A. He would keep a lookout on both sides.

Q. Oh, he would walk back and forth across the vessel?

A. Certainly.

Q. And that is what all lookouts do, isn't it?

A. Yes.

Q. They do not stand in one place?

A. Not generally.

Q. How many men does it take to heave the anchor forward?

A. On the Commodore?

Q. Yes.

A. One man can heave it.

Q. You heard Captain Johnson testify?

A. Yes.

Q. Did you hear him say three or four men would be at that anchor?

A. There generally are three.

Q. Where do they stand?

A. One man heaves it in—holds the valve.

Q. Where does he stand?

A. At the valve on the winch.

Q. How far is that abaft of the stem?

A. As near as I can judge now about 15 feet—that's a guess.

Q. Where are the other two men?

A. They watch until the anchor is heaved up.

Q. Well, where are they watching?

A. Anywhere around there.

Q. Give us the position.
A. On the forward deck.
Q. Forward of the bitts?
A. Might not be forward of the bitts—might be aft.
Q. And then what?
A. When the anchor is heaved up they swing out the davit.
Q. Then there is room forward for two men to stand immediately aft of the bitts, isn't there?
A. Two men could get in there.
Q. And between the winch and the bits there is room for two men?
A. Two men can get in there, yes.
Q. How far is it from the pilot-house on the tug to the aft part of the hatch forward? How far is it from the floor of the main deck—the floor of the pilot-house, to the aft end of the forward hatch—the big hatch?
A. I would only guess at that.
Q. How long is the main hatch fore and aft?
A. I don't know.
Q. How far is it from the forward end of the main hatch to the steam winch?
A. I could only guess at that too.
Q. How far is it fore and aft across the steam winch?
A. I could not tell you exactly.
Q. How far is it from the forward end of the steam winch to the forward end of the bitts?
A. I couldn't tell you.
Q. Do you know how far it is from the forward end of the main hatch to the booby hatch?
A. No, I don't know any of those distances at all.
Q. Do you know how long the booby hatch is, fore and aft?
A. No.
Q. Who was in supreme command, actually, of this tug on this trip?
A. Captain Johnson.
Q. To whom did you look for orders?
A. Captain Johnson.
Q. At all times?
A. Yes, sir.
Q. Didn't you take orders from Captain Bjerre?
A. I did at times.
Q. Wasn't he, as a matter of fact, in supreme command on that trip?
A. He was not as far as I was concerned.

Q. Why not?

A. Because Captain Johnson was the captain of the ship.

Q. So far as anybody else was concerned was he?

A. He was there in the interest of the owner, I suppose.

Q. He had command of Captain Johnson, and Captain Johnson had charge of you, is that it?

A. Captain Johnson was in charge of the ship.

Q. He had charge of taking the ship up, but who was in supreme command of the ship?

A. As far as I know Captain Johnson was.

Q. What did you hear immediately before Captain Bjerre told you to go down to the machine—in the pilot-house, if anything?

A. I heard Captain Johnson suggest that it would be a good thing for me to stand by the towing machine.

Q. Is that all you heard?

A. Immediately before going down?

Q. Yes.

A. Yes.

Q. You didn't hear anything else at all?

A. Not that I can remember now.

Q. Was your deposition taken in this case last June at Ketchikan?

A. Yes.

Q. And you testified at that time—

A. I did.

Q. As a witness?

A. Yes.

Q. Were you asked this question: "And when you came on watch at 12 o'clock that night Captain Bjerre and Captain Johnson and you and the quartermaster were in the pilot-house for half an hour?"

A. Yes.

Q. And did you say, "Yes, somewhere in the neighborhood of half an hour"?

A. Yes.

Q. And were you not asked, "Who was in command"?

A. I was.

Q. And didn't you say, "Captain Bjerre was in charge, I believe"?

A. Yes, sir.

Q. Why don't you think you could hear the horn of the Mary Island light between the time you left Tree Point and the time the shackle broke?

A. The wind was in the wrong direction.

Q. Wasn't it because you were out of range of the light?

A. I didn't know I was out of range of the light.
Q. You know it now, don't you?
A. We must have been, yes.
Q. Isn't that the reason, now, in your judgment, that you could not hear that horn that night?
A. No.
Q. It is not?
A. No.
Q. How far can you hear that horn, do you know?
A. I don't know.
Q. Was the fog whistle frequently blown through the snow squalls?
A. I believe so, yes.
Q. And how many snow squalls did you have between Tree Point and the time the shackle broke?
A. I don't know.
Q. About how many?
A. I don't know anything about it—I couldn't tell you at all.
Q. There were some heavy snow squalls, however?
A. Yes.
Q. During that time?
A. Yes.
Q. And there were some very heavy snow squalls immediately before and immediately after the shackle broke, were there not?
A. I couldn't tell you.
Q. Were you asked this question: "And you had been there in the pilot-house previous to that time after you had gone on watch," at this former hearing I have spoken of?
A. In the wheel-house before I had gone on watch?
Q. "And you had been there in the pilot-house previous to that time after you had gone on watch"?
A. Yes.
Q. And you were asked, "Was it snowing," and you answered, "Yes it was snowing a little"?
A. Yes.
Q. And you were asked, "Light or heavy?" And you answered, "Light, and other times heavy"?
A. Possibly I did.
Q. Was it true?
A. I cannot remember now—it is a long time ago.
Q. Is it true that it was light and at other times heavy?
A. If I have testified there it must be.
Q. Is it true, looking back over the facts now?
A. I cannot remember.

Q. And you were asked, "When the barge got adri was it snowing?" And you answered, "Yes." Did you testify?

A. I must have, if it is there, yes.

Q. And was that true?

A. I cannot remember now.

Q. You cannot remember now?

A. No.

Q. And were you then asked whether there were lig or heavy squalls of snow, and you answered, "Rather hea squalls then." Did you so testify?

A. Yes.

Q. Was that your testimony at that time?

A. I suppose so.

Q. And was that true?

A. I cannot remember I am sure.

Q. Was your memory better then than it is now?

A. Naturally it would be.

Q. And if you so testified at that time do you think th is the fact?

A. Possibly if I testified, yes.

Q. How soon after the shackle parted did the towin machine begin to run away?

A. Right away.

Q. You had your hand on the hawser?

A. Yes.

Q. And the hawser was running out at that time?

A. When she carried away?

Q. Yes.

A. No.

Q. Just immediately before it carried away?

A. Yes, the wire slipped through my hand.

Q. Running out?

A. A little bit, yes.

Q. And then it broke?

A. Yes.

Q. And then it began to run in?

A. Yes.

Q. Did you look aft through the pilot-house windows a any time while you were in the pilot-house?

A. No.

Q. Not at all?

A. No.

Q. What were you doing?

A. I was just standing there with my back against th wheel-house.

Q. Looking forward?
A. Yes.
Q. Were you looking forward?
A. If I was standing with my back to the wheel-house I was naturally looking forward, yes.
Q. With your back up against the aft partition of the wheel-house?
A. Yes.
Q. What part of the wheel-house?
A. About amidships, I guess.
Q. You were right abaft of the wheel, then?
A. The telegraph is amidships, and I was on the port side of the telegraph.
Q. Where were you with reference to amidships?
A. Oh, I wasn't very close to amidships.
Q. How long did you stand there?
A. Oh, I stood there until I left the wheel-house.
Q. And during that three-quarters of an hour or an hour you were there Captain Bjerre was there, Captain Johnson was there and the quartermaster was there?
A. Yes.
Q. And during all that time you stood with your back to the wheel-house?
A. I moved around a little.
Q. Where did you move to?
A. I moved out to the side and back to amidships again.
Q. How far to the side?
A. It isn't very big and I couldn't have moved very far.
Q. You couldn't move very far because the other people were in your way, weren't they?
A. No, not in my way.
Q. Where was Captain Johnson standing?
A. Looking out of the window.
Q. Which side?
A. Port.
Q. Where was Captain Bjerre?
A. On the starboard.
Q. And you were standing amidships?
A. Yes.
Q. Moving back and forth a little bit?
A. Yes.
Q. It was your watch?
A. Yes.
Q. And Captain Johnson gave you the course?
A. He told me the course he was steering.

Q. That is the custom, isn't it, when you are steering for the watch on duty to give the course to the new watch?

A. Yes.

Q. What did you do?

A. I didn't do anything.

Q. Did you assume charge of the pilot-house?

A. No.

Q. Why not?

A. Because Captain Johnson was there himself.

Q. You didn't take charge while Captain Johnson was there?

A. No, he didn't hand the vessel over to me.

Q. And he didn't give you any course?

A. He gave me a course.

Q. Isn't that the way the vessel is handed over from one man to another, by giving the course?

A. Yes.

Q. There was nothing unusual that night, was there?

A. It was rather a dirty night.

Q. So far as the watch was concerned there was nothing unusual about it?

A. It was a dirty night and the Captain didn't want to turn the vessel over to me.

Q. Did he say so?

A. No.

Q. He simply stayed there, and that is far as you know?

A. Yes.

Q. Where were you standing below? You say you were standing under the over-hang of the house?

A. Yes.

Q. That is quite near the machine, isn't it?

A. Yes.

Q. And where are those lights that you spoke about?

A. One on either side.

Q. Underneath the over-hang?

A. Yes.

Q. What power lights are they?

A. I couldn't tell you—about 16 candlepower, I believe.

Q. How far is it from the automatic to the rail at the stern?

A. I could only give you a guess on that.

Q. What would be your guess?

A. Oh, maybe 8 feet.

Q. How many?

A. Around 8 feet, I should think.

Q. Isn't it nearer 30?

A. You mean the aft rail—the stern of the vessel?
Q. Yes.
A. Oh, yes, the stern of the vessel.
Q. How far is it to the rail of the vessel at the stern?
A. Somewhere in the neighborhood of 30 feet, I guess.
Q. Can't you give it a little more definite than that?
A. No, I cannot.
Q. And what were you doing immediately before the vessel made this change of 2 points, which was immediately before the breaking of the shackle?
A. I was standing by the machine.
Q. Were you manipulating the machine?
A. No, I was not.
Q. What were you doing?
A. I was watching it.
Q. The machine itself?
A. Yes.
Q. Were you looking aft or forward?
A. I was looking in different directions.
Q. At the machine?
A. I didn't stand there all the time; I would take a walk to the rail and back again and look around.
Q. Just before the shackle parted you say you were looking at the machine?
A. I was standing alongside of it, yes.
Q. Which way were you facing?
A. I was facing aft when it broke.
Q. How long had you been facing aft when it broke?
A. I couldn't tell you.
Q. How long after the shackle parted did the machine begin to run away?
A. It begun to run away as soon as the shackle parted.
Q. You heard Captain Johnson's testimony?
A. Yes.
Q. He said it was a few minutes—is that correct?
A. As soon as the shackle parted the machine started to heave in, right away.
Q. It did?
A. Yes.
Q. And that is the way you knew that the shackle had parted, was the run away of the machine—is that right?
A. Yes.
Q. Any other way?
A. I felt the wire.
Q. What sensation of feeling was it?
A. The wire slackened.

Q. Where was your hand on the wire?
A. Aft part of the machine.
Q. Just aft of the machine?
A. Yes.
Q. As it ran off the drum?
A. It wasn't running off when it parted.
Q. Did you feel a jar with your hand when the shackle parted?
A. I simply felt the wire get slack, that is all.
Q. Did you feel the weight of the barge off the tug?
A. I thought it was off, yes.
Q. Did you feel the weight of the barge off the tug?
A. I felt the wire slacken.
Q. Is that the only feeling you had of it?
A. That's all.
Q. Didn't you testify on the former examination that you felt the weight of the barge off the tug?
A. The wire would naturally get slack if the barge was off of it.
Q. I am not referring to that—I am referring to your sensation of touch. Didn't you feel the weight of the barge off the tug?
A. I felt the weight of the wire slacken.
Q. Did you feel in your body, or have any sensation of feeling at all in reference to the weight of the barge being off the tug other than what you say you received through your hand on the wire?
A. I thought the barge had gone.
Q. What made you think so?
A. By feeling the wire get slack.
Q. And that was the only sensation you had that caused you to think the barge had gone?
A. Yes.
Q. And instantly the machine began to run away?
A. As soon as the thing let go.
Q. Instantly, wasn't it?
A. As soon as the thing let go.
Q. Was it instantly?
A. I suppose it was instantly.
Q. Well, was it or not?
A. I don't know.
Q. How was the sea at that time?
A. Quite a choppy sea.
Q. The ship wasn't taking any sea from the stern, was she?
A. No.

Q. And how was the wind at that time?

A. Southeast wind.

Q. Had the wind increased after you went down below at a quarter to one up to the time of the breaking of the shackle?

A. I don't think it did.

Q. Had the squalls increased?

A. No, they were about the same as far as I could judge.

Q. And did it rain between the snow squalls?

A. I never took particular notice of that; it possibly did rain and sleet—it did everything that night.

Q. All the time, in other words, it was a bad, dirty night, wasn't it?

A. It was a bad night, yes.

Q. And when it wasn't snowing it was raining and sleeting, wasn't it?

A. I cannot remember now.

Q. Was it snowing too hard, both before and after the accident, to see Mary Island light?

A. We did see Mary Island light afterwards,—after the barge broke away and we got into the range.

Q. About how long after the barge broke away?

A. It may have been an hour, as near as I can remember—I would not say positively.

Q. Was it snowing then?

A. When I seen it I don't believe it was snowing very hard—it may have been a little.

Q. But you saw it through the snow?

A. I seen it through what snow there was at that time, yes.

Q. How far was it away then?

A. Oh, maybe a mile—half a mile—something like that.

Q. How long did it take to heave that wire in after the shackle broke?

A. At the rate of speed we were heaving it in it didn't take very long.

Q. I asked you how long.

A. Five minutes, probably.

Q. How long a wire was out?

A. 180 fathoms.

Q. In this Claimant's Exhibit No. 27, Mr. Dawe in the first diagram, the position of the tug and barge is given, and that was 1080 feet, wasn't it—180 fathoms?

A. Yes.

Q. Do you mean to say with the wheel of the tug hard over and kept hard over that she wouldn't go around at a

right angle and quicker than you have described the line B-D-E?

A. She may have; I am not a mathematician.

Q. And that is not intended to describe the circle she would make, is it?

A. To the best of my knowledge.

Q. Do you think that is as much of a circle as she would make if her helm was put hard over?

A. That is as near as I can do.

Q. Do you think she would make that large a circle if she had her wheel hard over?

A. If you get a drawing and ask me about it I may be able to tell—that is the best I can do.

Q. That is the best you can do?

A. Yes.

Q. And in diagram 2 the circle is M-N-O?

A. Yes.

Q. So she would make almost as large a circle with a two point turn as she would with an eight-point turn?

A. There is a difference in the drawing.

Q. Very little difference. The drawing will speak for itself. Going at five knots an hour do you know how many feet you were going over the ground in a minute—the momentum?

A. I do not.

Q. Assuming it was 8.4 feet a second that you were going through the water just before the shackle broke, that same momentum would be imparted to the barge, would it not?

A. Yes, I guess it would.

Q. And after the shackle broke how long would it take the barge to reach the place where the tug was when the shackle broke, if she were going, say, 8½ feet a second?

A. That ought to be figured out on paper. I couldn't figure it out in my head at the present time.

Q. Can you figure it out on paper?

A. I might possibly do it. I am not very good at arithmetic—I will try.

Q. Can you judge approximately how many minutes it would take for the barge to get to the position of the tug?

MR. STRATTON: After the shackle broke?

MR. GORHAM: After the shackle broke, yes.

A. No, I couldn't very well tell you.

Q. I want to know how soon after the breaking of the

shackle the barge would arrive at the place where the tug was when the shackle broke.

A. No, sir, I couldn't judge that very well. I wouldn't like to give an opinion on it.

Q. You say that the Commodore's compass on this trip had a deviation of 2 degrees easterly?

A. On that course, yes, sir.

Q. That means that the needle of the compass has a tendency, or it is swung 2 degrees to the east, does it not?

A. Yes.

Q. And if your course by the compass was north 5 degrees east, what would be the magnetic course?

A. The course by the compass?

Q. Say north 5 degrees east, what would be the magnetic course?

THE COURT: Let me understand what you mean by that question. Do you mean that if that was the course laid down by the chart, the course that he wants to take—

MR. GORHAM: No, I do not mean that.

THE COURT: Do you mean if that is the course the compass points to?

MR. GORHAM: That is the reading of the compass.

Q. The vessel will go north, and if your compass reads north 5 degrees east,—that is the compass reading, you understand?

A. Yes, I understand.

Q. And there is a deviation of 2 degrees easterly—that means easterly from magnetic, doesn't it?

A. Is there that much deviation in that course? I understood the deviation was on the northwest course.

Q. I am putting a hypothetical question. Suppose there was 2 degrees easterly deviation on that course, and the compass reading was north 5 degrees east, what would be magnetic?

A. North 7 degrees.

Q. I will ask you this question: Whatever course you are steering, whatever direction through the water the vessel is pursuing forward is indicated by the reading of the compass, isn't it?

A. Yes.

Q. So that no matter which way you are going ahead, north, east, south or west, the reading of the ship's compass will tell you which direction your vessel is heading? Now, when your compass points north and you say there is a

deviation, that means, does it not, that your compass, if it did not have that deviation, would be 2 degrees to the left of north, wouldn't it? North would be, with the deviation 2 degrees from where it would be without the deviation—it would swing to the left 2 degrees, wouldn't it—that is what deviation means?

A. The deviation is what the point is deflected.

Q. From what—deflected from what?

A. It isn't that,—sure, that is a mistake on my part.

Q. Do you know what deviation is?

A. Yes.

Q. What is it?

A. It is the difference in the compass—what the compass north is deflected from the magnetic north by local attraction.

THE COURT: When you say magnetic north you mean true north?

MR. GORHAM: No, magnetic north; and magnetic north is 29 degrees east of true north. Magnetic north points to the pole, and actual north points to the north star.

Q. (By Mr. Gorham): Now, magnetic north is always in these waters, 29 and a fraction degrees east of north, and when you take the reading of a ship's compass and you say there is a deviation you mean a deviation from magnetic, don't you?

A. Yes.

Q. Now, if your deviation is 2 degrees easterly, then the magnetic north would be 2 degrees west, wouldn't it—if the deviation of your compass is 2 degrees easterly?

A. Yes.

Q. Then the magnetic would be 2 degrees to the left of the way the compass points, wouldn't it?

A. 2 degrees easterly deviation is from the north.

Q. 2 degrees easterly deviation, your compass has been drawn over here by the local attraction of the ship?

A. Yes.

Q. So that is 2 degrees to the right of magnetic, isn't it?

A. Yes.

Q. So if you had 5 degrees on your compass reading magnetic would be 5 less 2, wouldn't it? Magnetic would be 3, then, wouldn't it?

A. No.

Q. Why not?

A. This is the compass course you are taking?

Q. I am taking a compass course, that is all.

A. You are not taking a chart?

Q. Let us forget about the chart, and let us find out what the compass reading is as compared to magnetic north. Your compass has a 2 degree variation from north—to the east, then magnetic north is 2 degrees westerly of that, isn't it?

A. Yes.

Q. And if your compass reading is 5 degrees east of north, then your magnetic is 2 degrees less than that, isn't it?

A. No, sir.

Q. If you go to the left when you are at north to get your magnetic why don't you go to the left when you are north 5 degrees east to get magnetic? It is simple.

A. Yes, I know; but I think you are wrong.

Q. Why?

A. You are taking the compass course to steer by and you want to get it to magnetic?

Q. Yes—you have to deduct, don't you?

A. No; if you are taking a course off the chart and turning it into a compass course then you would deduct.

Q. I am not talking about anything off the chart,—I am talking about taking your own ship's compass.

A. Then I cannot get you.

Q. You don't know?

A. I do know.

Q. Suppose we all get aboard the Commodore and we look at the compass and the compass reading is north, what is magnetic?

A. Two degrees easterly.

Q. Your deviation is 2 degrees?

A. Yes.

Q. We get aboard her and we see your compass reading, and the ship is heading north, what is magnetic north?

A. 2 degrees east of north.

Q. Then you have a westerly deviation from north, haven't you, in that your compass is drawn over to the west?

A. I don't quite understand you there.

Q. Your compass has a 2 degree deviation to the east?

A. Yes.

Q. That means it swings over to the east by reason of the iron in the ship?

A. Yes.

Q. East of what—magnetic?

A. Yes.

Q. Then if it swings over 2 degrees east of magnetic you would have to go 2 degrees to the left to get magnetic, wouldn't you?

A. Yes.

Q. Then if it is north 5 degrees—

A. You are speaking of a compass course?

Q. I mean if your ship is going through the water so that it heads north 5 degrees east, what is the magnetic, assuming the same deviation,—do you know?

A. I do know, yes.

Q. What is it?

A. Oh, I think you are wrong.

Q. I am asking you,—I am not testifying.

A. North 7 degrees east.

Q. The magnetic, then, is 2 degrees east of your compass reading, is that right?

A. Yes.

Q. That is right?

A. That is the magnetic course?

Q. Yes; the magnetic course at that place would be 2 degrees east of your compass reading?

A. Yes.

Q. And you call that a deviation of your compass of 2 degrees east, do you?

A. Yes.

Q. Do you ever convert your compass readings, north and west, and east and south, and so on, to degrees,—so many degrees east or west of north—do you do that at all?

A. No.

Q. Do you know how to do it?

A. I might possibly be able to do it,—I don't say I would; I haven't done it for a long time.

Q. How about the speed after 12 o'clock at night compared with the speed prior to 12 o'clock?

A. I don't know anything about the speed prior to 12 o'clock.

Q. Why not?

A. I wasn't on watch.

Q. Were you awake?

A. I was called about a quarter to twelve.

Q. And when you say moderate, what do you mean by moderate speed for that tug with her tow?

A. Well, I would call 5 knots a moderate speed.

Q. Do you think this vessel was only going 5 knots after 12 o'clock that night?

A. I wouldn't swear what she was going.

Q. You said she was going a moderate speed.

A. Oh, I said after 12 o'clock.

Q. That is what counsel asked you, then,—you said after 12 o'clock her speed was moderate?

A. I know her engines were going full speed when I came on deck at 12 o'clock.

Q. How long did they continue to go at full speed?

A. I don't know what time the Captain rang for half speed, I am sure.

Q. And if she was going full speed that night with that tow, with a fair wind blowing 30 miles an hour, how fast was she going over the ground?

A. I couldn't tell you.

Q. You don't know?

A. No.

Q. Not after thirty trips through that channel?

A. Yes, not after thirty trips.

Q. How long does it take to warm up the towing machine?

A. It depends on how quick you want to warm it up.

Q. Ordinarily how long does it take to warm it up—under ordinary circumstances?

A. If you have lots of time it would take 10 or 12 minutes, I guess.

Q. You say there was a little choppy sea on?

A. Yes, there was quite a choppy sea.

Q. How choppy?

A. I couldn't tell you.

Q. You had a flood tide and a fair wind, didn't you?

A. I am not sure what the tide was.

Q. If you had a flood tide and a fair wind what sea would that produce in that channel?

A. Just the sea that was there that night, as near as I can give it.

Q. You say you do not know what the tide was. What is the effect of the wind and tide on the sea when they are in the same direction?

A. It is inclined to lessen the sea.

Q. It is when the wind and tide cross that you get a choppy sea, isn't it?

A. You would get a choppy sea with the wind going with the tide.

Q. When the tide is ebbing and the wind is blowing in the same direction you would get a choppy sea?

A. If the wind is right.

Q. Was there much chop that night?

A. Considerable chop.

Q. How much?

A. I couldn't tell you. What do you mean,—do you want to know how high the sea was?

Q. Yes.

A. I couldn't tell you that, I am sure.

Q. Was it safe for a good-size row boat?

A. It depends on the kind of a row boat it was.

Q. A well-built row boat with a good seaman in it,—was it safe?

A. The Captain and I the next morning went out in a boat from the Commodore.

Q. I didn't ask you about the next morning.

A. There wasn't much difference in the sea.

Q. So if you were safe the next morning in a row boat then it would have been safe to be in a row boat the night before, would it?

A. If it was a good row boat.

Q. It wasn't a sea that made any appreciable effect upon the tug Commodore, was it?

A. I have seen her in worse seas than that.

Q. I didn't ask you that.

A. That is the only way I can answer that.

Q. Did it have any appreciable effect upon the tug Commodore?

A. It made her roll a little bit, yes.

Q. How much?

A. I couldn't tell you in degrees.

Q. Was it a choppy sea or a lumpy sea?

A. It was a choppy sea for that channel, I guess.

Q. A lumpy sea is a little heavier than a choppy sea, isn't it?

A. I don't know.

Q. You don't think the wind had increased after you left Tree Point?

A. I wasn't up at Tree Point.

Q. Well, after you came on watch at 12 o'clock, do you think the wind increased between that time and the time of the breaking of the shackle?

A. If it increased any it wasn't very much.

Q. Did the sea increase?

A. I don't think so.

Q. But it continued to rain and to snow and to sleet during all that time?

A. There was snow, rain and sleet falling, yes.

Q. With a fair wind. You would get a good deal of that sleet aft if you were at the towing machine, wouldn't you?

A. Yes, I guess I would.

Q. And you felt it all the time from the time you went down there until the time the shackle broke?

A. I was underneath the over-hang of the house—I didn't feel it so much.

Q. With a 30-mile wind it would blow in there, wouldn't it?

A. Oh, yes.

Q. It is all open there, isn't it?

A. Not a great deal.

Q. Isn't it open?

A. Oh, yes, it is open.

Q. Didn't you feel that sleet and wind all the time you were down there at the towing machine?

A. I wouldn't say all the time.

Q. How much of the time?

A. I couldn't tell you that—I don't remember that far back.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. You stated on cross examination that at the time the shackle broke you had your hand on the hawser close to the towing machine?

A. Yes, sir.

Q. And that the hawser paid out a little bit. Can you tell in inches or feet approximately how much the hawser paid out before the shackle broke?

A. Well, it was very little,—I wouldn't say—maybe a foot or 18 inches—somewhere around there.

Q. Then the strain couldn't have been very great when the shackle broke with the hawser paying out only a foot or so, could it?

A. No, there couldn't have been much strain.

Q. Now, when the boat was running full speed that night after 12 o'clock and before she slowed down, about how many knots an hour do you think she would run,—under those conditions, I mean?

A. Oh, 7½ or 8 knots, I should think—somewhe around there.

Q. In your opinion would that be a moderate rate speed under those conditions?

MR. GORHAM: He is cross examining his own witne This witness has testified 5 miles is a moderate rate speed—that is cross examination of his own witness.

Q. (By Mr. Stratton): I will ask you what, in yo opinion, would be a moderate rate of speed under the co ditions that night, up to one o'clock?

MR. GORHAM: You have already gone into that.

A. 5 knots.

Q. Would you consider any speed in excess of 5 kn an excessive speed from Tree Point north to Mary Island

A. I couldn't tell you.

Q. You testified, I think, that in your former depositi you stated that you believed Captain Bjerre was in char of the vessel that night, and now you say that Captain Joh son was master and in charge—is there any explanation those two statements you want to make?

A. Yes, Captain Johnson was master of the vessel, a he was the man I looked to for my orders; but at the sa time I knew Captain Bjerre was there in the interest of t owners, and if he gave me any orders I naturally would ha to take them.

Q. Now, if the deviation is 2 degrees east and the cour of a vessel is north 5 degrees east, what is the magne course?

A. The course is north 5 degrees east?

Q. The compass course is north 5 degrees east, and t deviation is 2 degrees east, what is the magnetic?

A. North 7 degrees east.

Q. If the compass course is north 5 degrees west a the deviation is 2 degrees east, what is the magnetic cours

A. North 3 degrees west.

Q. If the deviation is 2 degrees west and the compa course is north 5 degrees west, what is the magnetic cours

A. That would be north 7 degrees west.

Q. Now, if the deviation is 2 degrees west and the co pass course is north 5 degrees east, what is the magne course?

A. The compass course is what?

Q. The compass course is north 5 degrees east and t deviation is 2 degrees west, what is the magnetic course?

A. North 3 degrees east.

Q. Now, if the compass course is northwest ½ west, and the deviation is 2 degrees to the east, what is the magnetic course?

A. Northwest 3/8 west.

Q. In other words, 2 degrees, in practice on ships, is considered an eighth of a point, is it?

A. I never figured it out.

Q. I mean in practice?

A. Yes, it is about ⅛ of a point.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. Then, when you have a variation of 2 degrees you allow an eighth of a point either one way or the other, is that what you mean?

A. Approximately, yes.

Q. You don't have degrees on your compass, do you?

A. No.

Q. You have to go by points, quarter points, half points and eighth points, don't you?

A. We generally work to a quarter point.

Q. And if your deviation is 2 degrees east you would call that an eighth of a point?

A. Well, 2 degrees,—let me see—it is a little over an eighth,—between an eighth and a quarter, I guess.

Q. 2 degrees is between an eighth and a quarter of a point?

A. Yes.

Q. In your practical work aboard ship in navigating your vessel, is that what you mean?

A. Yes, sir.

MR. GORHAM: That is all.

MR. STRATTON: That is all.

QUESTIONS BY THE COURT:

Q. I understand you were the mate of the vessel?

A. Yes, sir.

Q. And you had charge of this automatic steam towing device?

A. I worked it, yes, often—very often; not all the time.

Q. How long before the shackle broke, or the accident happened, or the barge got loose,—we will call it the breaking of the shackle—how long before the shackle broke were you told by Captain Johnson to stand-by the steam towing device?

A. Somewhere around half an hour, or three-quarters,—I couldn't be sure.

Q. When before that was the last time you had stood by the steam towing device?

A. The boat was laid up in Vancouver seven weeks before that, and that is a long way back to remember—I couldn't really tell you that.

Q. I mean that you stood by on this vessel on this trip?

A. Coming across Queen Charlotte Sound.

Q. You stood by coming across Queen Charlotte Sound?

A. No, I didn't stand by up there, either, I don't think,—I couldn't just remember that, I am sure.

Q. Now, what was there on this particular occasion, if you know,—what reason was there on this particular occasion more than other occasions that you should stand by the steam towing device?

A. On other occasions I have stood by when the weather was bad; sometimes it required a little more or a little less steam; sometimes the tow pulled the wire out pretty far and you would want to take it up with the steam; and that night the Captain thought that he ought to have somebody standing down there for that reason.

Q. Did you anticipate that there was going to be any strain that night?

A. Well, in a following sea there is nearly always a little strain.

Q. And day times, night times, and at all times, there is some strain on it, isn't there?

A. There is the towing strain, yes.

Q. What was there on this particular occasion at one o'clock at night that the Captain should order you to stand by the steam towing device?

A. There was a following sea.

Q. Had there been any following sea after you left Queen Charlotte?

A. No, not to any extent.

Q. When did the sea begin to follow?

A. After we rounded Tree Point.

Q. You left Tree Point at 11:19, didn't you?

A. Yes.

Q. Who was standing by the towing machine then?

A. I suppose they didn't think it was necessary to have anybody there at that time—they would have to call somebody up from below.

Q. Notwithstanding you had a following sea?

A. Yes.

Q. I am not very well versed in navigation and I want to ask you a question: The course that has been laid out here, northwest one-half west—is that predicated on your being half a mile off Tree Point?

A. Yes, sir.

Q. Suppose you had been a mile off Tree Point and had followed that course, where would that have brought you?

A. I would have to take a rule and lay that off.

MR. GORHAM: That is on Claimant's Exhibit No. 26.

THE WITNESS: Northwest one-half west?

Q. We will assume that the line A-B on Claimant's Exhibit No. 26 is the line northwest one-half west, compass course, and assume that B is half a mile from Tree Point. Now, lay out that course, assuming that you are a mile from Tree Point, and call it C-D at one end, and D-E at the other end.

A. That is the course a mile off Tree Point.

Q. Now, the line C-D and D-E would be just parallel to the line that has been laid out before, A-B, would it not?

A. Yes, sir.

Q. If you were a mile and a half off Tree Point instead of half a mile, that course would be a line parallel to C-D D-E only half a mile closer to Mary Island, wouldn't it?

A. Yes, sir, half a mile closer here.

MR. GORHAM: At the northern end.

THE COURT: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. I will ask you to measure for me the distance between Mary Island and the line C-D D-E.

A. A little less than ¾ of a mile—5/8.

Q. What is a safe clearance at Mary Island?

A. Half a mile is a good safe clearance.

Q. I will ask you if you want to make an explanation of any answer you gave to a question in reference to moderate speed,—what you understood the question to be.

A. I understood the question to be that if the vessel was slowed down to 5 knots an hour to be a moderate speed, and I believe Mr. Gorham put the question if the vessel was going at 7½ knots an hour and that was her full capacity, would that be a moderate speed.

Q. That was the question he asked. Well, now, what was the speed of the vessel, if you know, approximately, say between 12 o'clock, when you went into the pilot-house, and the time she slowed down at one o'clock?

A. Somewhere in the neighborhood of 7½ or 8 knots, I testified.

Q. Under the circumstances, the condition of weather and everything, I want to know whether, in your opinion, that was a reasonable rate of speed for the vessel to go through the water?

A. Yes.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. But you did testify upon your direct examination in answer to Mr. Stratton's question that after 12 o'clock the speed, under the conditions existing, was a moderate speed?

A. Between twelve and one?

Q. After 12 o'clock; you testified on direct examination that after 12 o'clock the speed the tug had under the conditions existing was a moderate speed?

A. Yes.

Q. And you still adhere to that, don't you?

A. With the vessel going at that rate of speed?

Q. At whatever rate of speed she was going under the conditions then prevailing, was moderate?

A. Yes.

Q. You still adhere to that, do you?

A. Yes.

Q. And you still adhere to your further testimony?

A. Yes.

Q. That a moderate rate of speed was 5 knots an hour?

A. I misunderstood that question.

Q. What is a moderate rate of speed?
A. That all depends on the boat.
Q. Well, the Commodore.
A. Well, I consider she was going a moderate rate of speed that night.
Q. What part of the night?
A. The whole of the night.
Q. Both when she was going 7 knots an hour and when she was going 5 knots an hour?
A. Yes.
Q. Either one is moderate?
A. Under the circumstances, yes.
Q. Coming across Queen Charlotte Sound you were bucking a head tide and wind, weren't you?
A. I don't know whether I was on watch in Queen Charlotte Sound or not.
Q. What time did you come through Queen Charlotte on that trip?
A. The logbook will tell you,—I don't remember.
Q. Will you find it in the log-book?
A. Yes.

MR. STRATTON: We offer identification No. 26 in evidence.

THE COURT: There being no objection, it will be received.

(Whereupon said Claimant's Exhibit No 26 for identification was received in evidence and marked Claimant's Exhibit No. 26.)

THE WITNESS: We were the greater part of the way across the Sound when I came on watch, according to this book here.

Q. How was the weather?
A. There was a northwest wind.
Q. That would be bucking the wind?
A. A little forward of the beam.
Q. How was the tide?
A. I don't remember.

MR. GORHAM: That is all.

MR. STRATTON: We offer in evidence the page of the log book which is marked Libellant's Exhibit No. 2, W. T. Mahoney, Deputy Clerk.

MR. GORHAM: No objection.

(Whereupon said page of said log-book was received in evidence and marked Claimant's Exhibit No. 28.)

MR. STRATTON: That is all.

(WITNESS EXCUSED.)

R. R. TINKHAM: Called as a witness on behalf of the claimant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. What is your name?
A. R. R. Tinkham.
Q. Where do you reside?
A. Ketchikan.
Q. How long have you lived here?
A. About two years and a half.
Q. What is your business?
A. Superintendent of the 16th Lighthouse District.
Q. In the employ of the United States?
A. Yes, sir.
Q. How long have you been in the employ of the United States?
A. Intermittently for about 12 years.
Q. What is your age?
A. 34.
Q. What is your profession?
A. Civil engineer.
Q. What preliminary education did you have before you entered on the practice of your profession?
A. Common school education and four years in a special course, in the University of Michigan, in engineering.
Q. Have you engaged in any work since that time other than civil engineering?
A. No, sir; the work I have been engaged in is civil engineering or closely allied subjects.
Q. To what extent have you devoted your talents to the study of steel, iron and metals?
A. Why, to the extent necessary to understand thoroughly the use of iron and steel in construction and shop work. I have covered practically all the field of structural metals.

Q. What experience have you had since you have completed your professional education in the handling of iron and steel?

A. I was two years structural engineer with an iron and steel company.

Q. During that time what was the character of your work—during those two years?

A. I began over the drafting board, and was engaged in shop inspections, in tests, and in steel work.

Q. In tests of iron and steel?

A. Yes, sir.

Q. For tensile strength?

A. Yes, sir.

Q. Now, the next period from that on?

A. Then while still in the employ of the structural steel company I was engaged by the Government to design the structural steel work for two important stations in the lighthouse service, and I was engaged on the construction of those stations in addition.

Q. And following that?

A. I was for a while with a firm of engineers and architects—designed a hotel in Bay City, Michigan—a steel structure.

Q. Anything else?

A. I was two years with the Truss Concrete & Steel Company, designing engineer.

Q. Where are they located?

A. They have offices in all the principal cities. I was in their head office in Detroit.

Q. (By Mr. Gorham): You say you were designing engineer?

A. Yes, sir.

Q. (By Mr. Stratton): Then after that?

A. I was employed by the United States Lighthouse Service, and have been there ever since.

Q. What is the character of your work in the Lighthouse Service, and what has it been?

A. Superintendent of construction.

Q. What is the character of structures you superintend?

A. All classes of construction,—all materials.

Q. What, if any, experience have you had in testing the tensile strength of iron and steel metals?

A. Well, while engaged with the structural steel company first mentioned, on numerous occasions I actually conducted the tests to determine whether steel they were using answered to the specifications; and since being employed by

the Lighthouse Service I have always supervised tests of various kinds of metal—steel, iron, cast iron, at different times inspecting the manufacture of structural iron and steel.

Q. I will ask you what engineering societies you belong to, if any?

A. I belong to the American Society of Civil Engineers, to the Detroit Engineering Society, and to the engineering society of the University of Michigan.

Q. What is the American Society of Civil Engineers?

A. It is a national society composed of engineers who have petitioned the society for membership and have been examined and have qualified to join the society—depending upon their acquirements.

Q. I will ask you what is the structure, if you know, of wrought iron?

A. It is the same as all iron—crystalline.

Q. Crystalline formation?

MR. GORHAM: I do not think this witness has qualified himself, if the Court please, in the fabrication of wrought iron at all. He has made some tensile tests, but as to the fabrication of iron he has not qualified himself and we shall object until he does. He may be able to do it—I don't know anything about that, but he has not done so yet, and we move to strike out the question and answer for that reason.

THE COURT: I think a man whose business it is to test these things must necessarily be qualified to testify to their structure. A man whose business it is, and whose experience involves the question of testing the strength of these materials must necessarily know something about how they are formed and what their characteristics and peculiarities are.

MR. GORHAM: It is an entirely different profession, if the Court please. Fabrication of steel and iron is one thing, and the testing by a testing machine for the tensile strength does not necessarily include any knowledge whatever of the fabricating process, and he might draw right or wrong conclusions in simply testing the tensile strength unless he knew how the metal was fabricated.

THE COURT: Perhaps you had better qualify him a little more specifically, Mr. Stratton.

Q. (By Mr. Stratton): What, if any, experience have you had which would enable you to determine the structure

of iron and steel, and its susceptibility to fatigue or crystallization or the breaking up of the molecules?

A. Why, through a great deal of laboratory work and actual experience with the metals since that time, and practical experience with them in the field.

Q. Now, I will renew my former question.

MR. GORHAM: Could I ask the witness further in reference to his qualifications before he proceeds along his line of examination?

THE COURT: Yes.

QUESTIONS BY MR. GORHAM:

Q. How long did you conduct your laboratory work?

A. Possibly over a period of two years while in the University, and I did considerable laboratory work for the Structural Steel Company after I went with them.

Q. What was your laboratory work in the University?

A. You want me to enumerate all the laboratory courses I had?

Q. In reference to the subject to give you experience to determine the structure of steel and iron.

A. The principal course was one called Strength and Resistance in Materials, occupied one year in the University.

Q. Strength and Resistance in Materials?

A. Yes, sir.

Q. What kind of a plant did you have?

A. We had a very fully equipped testing laboratory belonging to the University.

Q. I do not mean testing laboratory—I thought you were talking about laboratory work in the fabrication of iron and steel. Have you had any experience along that line?

A. Yes, sir.

Q. Where?

A. At Detroit, Michigan.

Q. For how long a time?

A. Two years.

Q. What were you doing there—in what capacity?

A. I answered that question.

Q. I did not understand it.

A. I went there as draftsman in their structural steel department.

Q. How long were you draftsman?

A. Probably for a year.

Q. And after that?

A. During that time, however, I was a great deal in the

shop. That plant has a great deal,—is composed of a good many departments besides its actual structural department, and it was necessary for an engineer in their employ to have a good working knowledge of all the departments.

Q. I do not care what it was necessary for their engineers to have. I want to know if you have any knowledge of the fabrication of iron and steel?

A. I have that.

Q. Where did you gain that knowledge—at the University?

A. I gained that knowledge at the University and actual experience in their shops.

Q. Did they fabricate the metal there in their shops?

A. Yes, sir.

Q. And what experience did you have there in the fabrication of iron and steel?

A. Superintendence and direction of it.

Q. You were superintending and directing the fabrication of iron and steel?

A. Yes, sir.

Q. What did they make, for instance?

A. Their method was that when one of its structural engineers was given a job he would follow it through to its completion—we would follow it through the pattern shops, through the shops and into the field—supervision and superintendence of the erection in the field.

Q. Did you have personal supervision over the heating process?

A. It was necessary to inspect the forgings, yes, sir.

Q. I am talking about the heating process, now, as it comes out of the furnace?

A. I did not actually handle the hammer, no.

Q. When you take your merchant iron out of the furnace there isn't any hammer connected with it at that time, is there?

A. I have seen it a great many times.

Q. Did you have anything to do with it?

A. Actually taking the metal out of the fire?

Q. Superintending it, personally?

A. A great many times I have, yes, sir.

Q. Did you direct the treatment of it and the application of the heat, and the degree of heat?

A. I have had the specifying of such requirements, yes.

Q. Where did you learn how to give the specifications?

A. Through my education, and the application of it.

Q. In the University?

A. Yes, sir.

Q. And that is all?
A. No; and the application, as I said, in the shop.

MR. GORHAM: All right, go ahead.

Q. I will ask you, if you know, what is the structure of wrought iron?
Q. How does its structure compare with that of steel and other metals?
A. Crystalline.
A. It is very similar except that other metals—different grades of steel would have perhaps a different grade of crystallization—that is, different sized crystals.
Q. Explain to the Court what you mean by crystals, and especially crystals in respect to wrought iron.
A. Well, it is more exactly a granular structure instead of crystalline. Molecular would be a better description for it; and this granular structure varies in different grades of metals—coarse and even,—ordinarily it is fine in wrought iron.
Q. And what characteristic does the fineness of the granules denote, in wrought iron?
A. Ductility and toughness.
Q. And the larger the crystals,—What is the difference between granules and crystals?
A. There is no difference that could be accurately described. A crystal is a definite geometric formation.
Q. Does the size of the crystals or granules have any effect upon the cohesive properties of the iron or metal?
A. Yes, sir.
Q. Explain that to the Court, if you will.
A. The larger the crystals in the metal the less cohesion results.
Q. What do you mean by crystallization?
A. You mean as ordinarily applied?
Q. As ordinarily applied.
A. The term crystallization as applied to metal is usually applied to the forming of crystals or the changing of the granular structure of the iron, increasing the granular structure or crystalline structure—that is, enlarging the crystalline structure of the metal.
Q. And what effect does the enlarging of the crystalline structure have upon the tensile strength?
A. Decreases it.
Q. The larger the crystal the less the cohesive power?
A. Yes, sir.
Q. What do you mean by fatigue of a piece of iron or metal?

A. It is the breaking down of these individual crystals or granules in the metal from over-strain, or from strain. I would say—perhaps not from over-strain necessarily.

Q. How else than by strain may wrought iron become crystallized?

A. By heating it.

Q. I will ask you whether or not included in strain is vibration? Do you include that in the term strain?

A. Yes, it is a shock.

Q. Now, I will ask you how wrought iron may become crystallized so that the granules will be enlarged and lessen the tensile strength of the metal?

A. Well, there are probably two ways in ordinary practice. One is bringing it to a high heat and allowing it to cool slowly—that is one way, allowing it to cool slowly from a very high heat; and another way is to subject it to repeated shocks.

Q. Explain, if you will, how wrought iron may become crystallized by subjecting it to intense heat and allowing it to cool slowly.

A. It is always beaten in the welding process, and where the metal is brought to a heat which is almost the melting point of iron and allowed to cool off undisturbed on the anvil, that will cause crystallization.

Q. In a case of that kind in what part of the piece that is being heated is the greatest crystallization?

A. It is the part that is subjected to the high heat. In the case of welding, the hammering takes out the crystalline formation, or reduces the size of the crystals, breaks them up and reduces them, increasing the toughness of the iron under the hammer. If any part of the iron is not hammered and is allowed to cool off undisturbed it will cool off with a larger crystalline structure.

Q. What effect will that have on the tensile strength of a piece of metal?

A. The hammering of the metal greatly increases the strength because it reduces this crystalline structure. Any part which is not hammered would be greatly reduced in strength on account of the crystalline formation which is allowed to take place.

Q. Take a piece of metal which has been welded, where is the weakest and where is the strongest part of that entire piece after welding?

A. The strongest part is where it has had the most hammering; the weakest part is the part that is nearest the hammer that has not come under the hammer at any place.

Q. I will show you all the exhibits marked Libellant's Exhibit D, and ask you if you have looked at those before?

A. Yes, sir.

Q. I wish you would look particularly at D-2, and I will ask you whether or not that has been welded?

A. Yes, I should say it has been welded.

Q. I also show you Libellant's Exhibit D-7—if that is a correct representation of Exhibit D as it was before it was broken—the portion of Exhibit D which is not shaded, that is, from figure 3 around the curve to figure 4 is missing—the balance of the shackle is here except the shavings in the little figures 6 and 5 from the tests—I will ask you where, by reason of the welding of the two eyes, the weakest part of that shackle would be?

A. It would be the part closest to the eyes which came under the heat of the furnace and was not hammered sufficiently.

Q. Now, can you look at Exhibit D-2 and say whether or not the welding extended beyond the small or bright end—extended around the curve beyond this smooth or bright end?

A. I would not say that it had, no.

Q. Then point out on Exhibit D-2 where the weakest part of that shackle would be.

A. I should say it would be approximately where the breaks show, or if anything, closer to the eye.

Q. Now, if that shackle broke under a strain of less than the tensile strength of the shackle to what would you or might you attribute the breaking?

A. You mean the tensile stress of the shackle or the tensile stress of the iron?

Q. The tensile stress of the shackle.

MR. GORHAM: That is purely a hypothetical question, of course?

MR. STRATTON: Oh, yes.

A. I ask again, you mean the tensile strength of the shackle or the metal composing the shackle?

Q. The tensile strength of the shackle, assuming it was a good piece of metal, good workmanship in it,—good material originally before it was welded?

A. It couldn't break, of course, at less than the tensile strength of the shackle; it might break at less than the tensile strength of iron of that size.

Q. Assuming that the shackle broke by the application

of a strain less than the tensile strength of the iron, to wh would you attribute the breaking?

A. I should attribute it to one of the two causes crystallization,—I should attribute it to what is ordinari called crystallization of metal.

Q. How might that crystallization be occasioned? Y have already given one way. Now, what is the other wa if there is another?

A. Continued application of shocks or vibrations.

Q. What effect do continuous shocks or vibrations ha on wrought iron?

A. Tends to crystallize or fatigue the metal.

Q. And if that metal or the object which is subjecte to these shocks or vibrations is of unequal strength by re son of crystallization caused by welding, which part wou break first by strain, the part that was welded or the pa that was unwelded?

A. The part that was unwelded; the part that wa crystallized from the high heat and which had not had th crystallization removed by pounding.

Q. Now, assume, Mr. Tinkham, that that shackle yo see there, Exhibit D, with the curve which you notice on th exhibit but which is not in evidence, had been used as shackle to connect a barge of 511 gross tons to a tug, an that the barge made three trips to Anchorage and retur to Seattle, a distance of approximately 3500 miles in eac round trip, and that in addition the barge had made anothe similar trip from Seattle to Mary Island, and that the cab in use was 1080 feet or less, and that during the time such use that shackle had been subjected to a vibratio caused by the passing of the tow line through the water. will ask you whether or not, in your opinion, that woul cause crystallization in the shackle?

A. It would quite possibly.

Q. Do you know from your own experience or observa tion whether or not a shackle in use as I have stated wi receive shocks or vibrations by reason of passing throug the water?

A. You mean the cable?

Q. By reason of the cable passing through the water.

A. Yes, sir.

Q. Now, assuming that that shackle was designed t have a tensile strength of 86 tons, and assuming that originally did have, that it was attached to a cable whic had a tensile strength of 53 tons, and to a chain which ha a tensile strength of 47 tons, and when strain was put upo those three appliances attached together the shackle brok

and the anchor chain and the cable remained whole, what would you say was the cause of that shackle breaking.

MR. GORHAM: I do not think the witness has been given all the conditions, if the Court please. He is assuming that this shackle was designed for a tensile strength of 86 tons. Now, the sum of the tensile strength of both sides of the shackle would be 86 tons, but the tensile strength of either side would be only half of that.

MR. STRATTON: I have stated the tensile strength of the shackle was 86 tons. That is what your witness said.

MR. GORHAM: Under certain conditions, and he qualified his answer every time.

THE COURT: The objection is overruled.

MR. GORHAM: Exception.

A. It must have been due to considerable weakening of the metal in the shackle.

Q. To what causes would you attribute the weakening of the metal in the shackle?

A. Either one or both of the causes I have already described to you.

Q. Now, if you take three links such as those I have just described, which one will break first when a strain is put on?

A. I do not understand your question.

Q. If you take a cable, a shackle and a chain attached together, and a strain is put upon them.

THE COURT: I think we may assume that it will break at the weakest point. That is what the expert said, and I am willing to let it go at that.

Q. Now, in reference to the causes of crystallization, I will ask you if you are acquainted with the American Civil Engineers' Pocket Book?

A. Yes, sir.

Q. What work is that?

A. It is a compilation of treatises written by a number of very well known American engineers.

Q. Is it or is it not a standard work in your profession?

A. It is so considered, yes, sir.

Q. Does it treat of the testing of iron and the behavior of iron under stress, defects and crystallization?

A. Yes, sir.

Q. And the causes of crystallization?

A. One of the treatises does so treat.

Q. I will ask you whether or not that book lays down the rule in reference to good wrought iron that when subjected to shocks or to repeated stresses which exceed the elastic limit the molecular structure becomes more or less crystalline?

A. I believe it does. All the standard works do.

Q. I will ask you if when the shock is not intensive whether it will take a greater number of shocks to produce crystallization than where the shocks are heavier?

A. A piece of iron may break under few applied stresses, and it may break under—and it may take millions of them to break it.

Q. Depending upon what?

A. Upon the strength of the shock or vibration.

Q. Will the same number of shocks always cause the same crystallization?

A. No, sir.

Q. In two pieces of iron that are supposed to be the same?

A. No, sir.

Q. Explain that.

A. I don t think I can explain it.

Q. Can anybody explain it?

A. It is not understood why that happens, but it actually does.

Q. Are you acquainted with Kent on Mechanical Engineering?

A. Yes, sir.

Q. Is that a well recognized authority?

A. Excellent.

Q. Standard work, is it?

A. Yes, sir.

MR. STRATTON: That is all.

MR. GORHAM: What is the date of the Kent you are referring to?

MR. STRATTON: 1912, 8th Edition.

MR. GORHAM: What is the date of the American Civil Engineers' Pocket Book?

MR. STRATTON: 1912, 2nd Edition. If your Honor please, I have another witness here who is in a hurry, and if there is no objection I would like to call him now.

MR. GORHAM: That is all right.

(WITNESS TEMPORARILY EXCUSED.)

G. E. LINGERFELT: Called as a witness on behalf of the claimant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. What is your name?
A. G. E. Lingerfelt.
Q. Where do you reside?
A. Ketchikan.
Q. What is your business?
A. I am a machinist.
Q. What experience and education have you had in the use and in the observation of the use of metals?
A. As far as technical education is concerned I never had but very little, but I have had considerable experience.
Q. State to the Court what experience you have had.
A. Well, I have had about 19 years practical experience. I served my apprenticeship in rolling mill machine shops, and worked at various places since then.
Q. What rolling mill did you work in?
A. Colorado Fuel and Iron Works, Pueblo.
Q. Do they fabricate steel and iron there?
A. They certainly do.
Q. What part of the work did you engage in, or parts?
A. I was in the mill around where they heat the metal; I was around the furnace where they melted the ore; I have seen it rolled from the ingots into rolls and all classes of merchant iron.
Q. Did you ever have anything to do with welding metals?
A. I have.
Q. To what extent have you had experience in welding?
A. I have had practical experience in welding in my own place in blacksmith work,—acetylene welding, and I have seen considerable of it in mills, both large and small.
Q. Were you ever in the employ of any steamship or railroad company's shops?
A. I worked for the Pacific Coast Steamship Company.
Q. For how long?
A. A year.
Q. What was the character of work they did in that shop?
A. General repair work both on marine engines and on locomotives, and also on mining machinery, as they have some mines.

Q. Did any of that work include the welding of wrought iron, steel, etc?

A. Well, it did, yes.

Q. Have you ever done any welding yourself?

A. Yes.

Q. And what other experience have you had?

A. I don't quite get just what you mean.

Q. Have you ever had any experience in testing steel rails?

A. Yes; I have used what we call a drop test. That is by having a tower and a weight, and you place your rail there on two pedestals and allow this weight to drop on it, showing the degree which the rail would bend to or break, or whether it would stand the shock.

Q. Do you know what effect a welding of wrought iron may have upon the strength of the bar that is being welded?

MR. GORHAM: Now, if the Court please, we object to that; no foundation has been laid; this witness has not shown himself competent by reason of any experience in the fabrication of iron. The mere working in a rolling mill and seeing somebody else do some work does not indicate that he has any knowledge of the structure of iron itself,—to what degree of heat it must be subjected to divorce it from its carbons, in the case of wrought iron, and such matters as that—he has not shown that he knows anything about it.

THE COURT: He has not been asked any such question as that. He has been asked whether he knows. He can answer if he knows it.

Q. (Question read). Answer that yes or no.

A. Why, I do, you bet your life.

Q. What effect may the welding have upon the strength of the iron?

MR. GORHAM: We interpose our former objection to this question.

THE COURT: Objection overruled.

MR. GORHAM: Exception.

A. It may have a various amount of different effects—it depends upon the heating and the treating while it is under a welding heat.

Q. All right, go ahead.

A. If your metal has everything good, proper heat and properly hammered, it will have a tendency to strengthen the piece of metal where it is welded because it intensifies the iron. If it is over-heated it will weaken it—it will

simply deteriorate the metal. I don't care how much you hammer it, it will deteriorate the metal to a certain extent—I mean to weaken it. Now, on either side of your weld where your metal is not hammered you will find larger crystals in it, and the metal will be weaker. I have seen that both in forge welding and acetylene welding. You can take an acetylene weld and fill the gap, and you have deteriorated the metal on either side of the weld, and I think any man will bear out my statement that ever seen a piece of acetylene welding and it breaks—it deteriorates the metal.

Q. What is the meaning of the word crystallization, Mr. Lingerfeld?

A. It means a breaking down of the structure of the metal, causing the crystals to break up and enlarge.

Q. What else except the application of heat would cause crystallization in wrought iron?

A. Well, heating and suddenly washing in water will cause crystallization; also a series of vibrations, shocks, or anything tending to jar the iron suddenly will do it.

Q. Does the time within which wrought iron will crystallize where it is subjected to shocks depend upon the number and strength of the shocks or impacts?

A. Well, no, it wouldn't to a very great extent. It depends more upon the grade of the iron,—in my opinion and with my experience it is on the grade of the iron. Some pieces of iron will let go in little or no time; others wont let go quite so soon. I have seen that a great deal in propeller shafts.

Q. You mean some pieces of iron will endure a great number of shocks and others very few?

A. Yes; we kind of imagine them having the same lasting qualities but they haven't.

Q. Have you in your experience seen wrought iron or metal crystallize by shocks?

A. Yes, I have.

Q. Just state—

A. That is, I have seen it after it was crystallized. I have never seen it in the course of crystallization and I don't know as anyone ever seen that, until after it was let go.

Q. I mean after it was let go.

A. Yes.

Q. What instances can you cite to the court that have come under your personal observation?

A. I will recite one instance that happened to us back in the mill. We were changing rolls in the mill—we used to swing three rolls into place, and we used a chain there time and time again, averaging from six to seven sets a day,

months in and months out, and on this particular occasion we were swinging the rolls in—everything was clear, and we were just about ready to place them, and this chain let go—no apparent cause whatever—breaking the tables down and laying out the mills for five days.

Q. How about shafts in gasoline and other vessels?

A. They crystallize.

MR. GORHAM: What kind of shafts, steel or iron?

A. Mostly steel.

Q. (By Mr. Stratton): Which will crystallize the quicker, steel or wrought iron?

A. Steel will.

Q. I will ask you whether or not wrought iron will crystallize from the same causes that steel will crystallize?

A. Yes.

THE COURT: And only those causes?

A. It is the only causes I know of.

Q. (By Mr. Stratton): Can steel be welded?

A. Yes, sir.

Q. Now, what experience have you had with respect to crystallized shafts in boats, if any?

MR. GORHAM: What kind of shafts, steel or iron?

MR. STRATTON: Steel.

A. I have replaced a great many of them since I have been here in Ketchikan; and going further back, when I was working for the Seattle Electric—I worked for those people six years—I seen, I dare say, hundreds of armature shafts broken off.

Q. What are they made of?

A. Steel.

Q. What is an armature shaft?

A. It is a series of steel plates electrically wired, made up for the purpose of generating electricity, and to hold the rotating element, made up on one central shaft.

Q. With reference to these steel boat shafts, I will ask you if you have examined them after they have broken?

A. I have.

Q. What in your opinion was the cause of their breaking?

A. Crystallization, mostly.

Q. What was the crystallization caused by?

A. Vibration.

Q. Vibration of what?

A. The propeller wheel and the engine.

Q. Do you know whether those shafts that you mentioned, boat shafts, were subjected to vibration for an extended period of time or a short period of time?

A. I have seen them break anywheres from two months,—some people claim they run as long as four years. For illustration, I changed an inch and three-quarter shafting last summer that they claimed run 4 years. It wasn't over an inch in diameter when we taken it out. After I taken it out I took it to the shop and put it on the anvil and hit it with the hammer and it broke off like that,—20 horsepower engine.

Q. Can it be determined by looking at a piece of iron to what extent it will withstand crystallization from a succession of shocks, or otherwise?

THE COURT: You mean by looking at it from the outside?

MR. STRATTON: From looking at it—by sight?

THE COURT: Without breaking it or seeing the structure of it?

MR. STRATTON: Yes.

A. I couldn't tell a thing about that.

Q. Can anybody,—is it possible for anybody to tell that from looking at it?

A. I don't hardly think it is, except you take a long piece of iron and you seen the class of scale that was on the iron it might be determined then, whether it was iron or steel, by the scale that was on it whether the iron carried lots of carbon.

Q. Take a wrought iron bar—can anybody by looking at it determine whether it would withstand a large number of shocks or only a few?

A. Would be impossible in my opinion—from my experience it would be impossible to tell.

Q. Have you observed what effect there is upon a tow line when it is towing a heavy barge through the water—that is, where the bight of the tow line is down in the water?

A. No, I never taken particular note of that, but my judgment of conditions of such things—

MR. GORHAM: Just a minute. If he hasn't had any observation of it he would not know what the conditions were, if the Court please.

THE COURT: He has not been asked the question.

A. No, not with a tow line.

Q. I will ask you this question. Assume that an inch and a half wrought iron shackle is attached to an anchor chain, and the other end of the anchor chain is attached to a barge of 511 gross tons, which is loaded with approximately a thousand tons of cargo, and there is attached to the shackle, also, a tow line a thousand feet long, or more, and that that tow line was attached to a tug, and that that tug with the barge in tow, had made three round trips from Seattle to Anchorage, a distance of 3500 miles for each round trip, and in addition a trip from Seattle up to Mary Island, and assume that the passing of the tow line through the water caused a vibration and trembling of the tow line and shackle, I will ask you whether or not in your opinion that vibration would be sufficient to weaken the shackle so as to cause it to break by the application of a slight strain.

MR. GORHAM: Now, if the Court please, we object to that—no proper foundation laid for such a question as that. This witness has not testified to any knowledge of this highly specialized science which would enable him to answer such a question. He would not know what part of the shackle it was that broke; he would not know whether it was because it was a poorly fabricated piece of iron, or whether it was due to vibration of a very highly fabricated piece of iron—he would not know anything about it except that it broke.

THE COURT: He would not know, Mr. Stratton, either, it seems to me, from your question what the strength of the vibration was, or whether the vibration was the same for all the three trips.

MR. STRATTON: I am covering it in this way, that the vibration can be seen and felt,—sufficient vibration so it can be seen and felt.

THE COURT: You may see and feel a vibration that is very small and you may see and feel a vibration that is very great,—unless you can give him some measure of the vibration—

MR. STRATTON: I cannot do that—it is impossible for anybody to do that, your Honor, because nobody knows that; but we know the vibration is there, passing through the water, and it is susceptible of being seen and felt.

THE COURT: Vibration would necessarily depend on the length of the hawser each trip, each time you are talking about, and would necessarily depend on the speed of the vessel, on the sea, and on so many things that are not embraced in your question,—

MR. STRATTON: But the vibration is there all the time, as the question assumes sufficient to be seen and felt. If there is sufficient vibration to be seen and felt will that, in his opinion, be sufficient to crystallize the shackle,—any vibration that is sufficient to be seen and felt?

THE COURT: I will permit him to answer the question and it can go for what it is worth, but I must say right now that I do not think it is worth much.

MR. GORHAM: Exception.

Q. (By Mr. Stratton): You may answer the question.

A. I know there would be a vibration in the line there from the throb of the propeller wheel and the engine,—I am not going to say how much that vibration is. I know there will be a vibration there—there is no getting away from it. Just so surely as your engine is working and your wheel is turning over you are going to get a throb in that line.

Q. And would that in your opinion be sufficient on the trips that I have mentioned to cause crystallization of the shackle?

MR. GORHAM: Same objection.

THE COURT: It will be admitted for what it is worth.

MR. GORHAM: Exception.

A. It would, in my opinion.

Q. Now, I show you Libellant's Exhibit D, D-1, 2, 3, 4, 5, 6 and 7, and ask you if you have examined those?

A. I have once prior to this.

Q. State whether or not, referring to D-2, there has been a weld of the eye,—I mean not particularly of the eye but—

A. Whether this eye has been formed here by welding?

Q. Yes.

A. I see a bad iron seam in the center of this piece that has carbon, but I don't see where the ends of that weld is laid in.

Q. If it was welded it is a good piece of welding, is it?

A. It certainly was.

Q. What effect would the welding have on the strength of that iron?

A. Intended to intensify it, welding is, or strengthen it, unless it has been burned. It is cut off smooth here, and I could not state whether that is crystallized or not.

Q. Look at this Exhibit D which represents this entire shackle, being the same size as the shackle, and this unshaded portion that you see is not here—the other part is here—

assuming that that shackle had been welded at both ends, where would the weakest point of the shackle be, if it has any weak point?

A. Why, it would be right here, right where the weld stopped; right at the extension of the weld or a short distance away from that—probably a quarter of an inche,—3/8 of an inch, maybe.

Q. And the further away from the weld you get would it be less strong or more strong?

A. Why, it would get stronger after you got,—probably a variation of ⅛ inch up to probably ¾ of an inch would be the weakest space, and after you left that your iron would have a tendency to be strong again because you don't get this iron here up to a violent heat—you don't have it so hot as you did here where you were doing this welding.

Q. Now, if a strain were put upon that shackle that you see there, where in your opinion would it break first?

MR. GORHAM: We object to that, if the Court please; the witness is not able to answer that question, or any such question, because there has been no foundation laid for him to do so.

Q. (By Mr. Stratton): Where would it be apt to break first?

A. The weakest point.

THE COURT: I do not imagine that will do anybody any harm.

MR. GORHAM: We will admit that.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. You said there was a bad iron seam there?

A. Yes, there is a place in there that has carbon in it.

Q. How can you tell?

A. Don't you think I know that stuff when I see it?

Q. I didn't ask you that question. I asked you how you could tell.

A. Because I can see it.

Q. Show the Court the carbon?

A. That is it.

Q. You mean the slag?

A. What else can it be but slag?

THE COURT: You answer the lawyer's questions and do not be insolent.

Q. Now, you are referring to exhibit D, figure 2, the slag or little black spot in the center of the polished end?

A. I am.

Q. That is an indication of the presence of carbon, is it?

A. That is my judgment of it, yes.

Q. In wrought iron is there a larger or lesser degree of carbon than there is in steel?

A. The carbon in steel—

Q. Answer the question.

MR. STRATTON: If you can.

Q. (By Mr. Gorham): Is there more carbon in wrought iron than in steel?

A. May I answer this question in my own way?

THE COURT: Yes, but answer the question.

A. Now, our practical experience in the mill, and practically speaking in a machine shop where we have had the experience, if a piece of metal shows such a place as that in it we say that is a bad iron seam in it—of course it is really slag. Steel has more carbon in it, as far as that is concerned, than iron.

Q. Why couldn't you answer my question with the word yes, instead of this voluntary information. I asked you which had the greater amount of carbon, steel or iron?

THE COURT: He answered your question. Ask him another question.

MR. GORHAM: I move to strike out all the parts of the witness' answer that are not responsive to the question. I apprehend we will have some trouble in getting our answers, and we might as well start in now and insist on the rule being observed.

THE COURT: I do not think there is anything in that answer that is not germane to his answering yes. I will let it stand.

Q. Is the slag any evidence that that constituted part of the welding?

A. It shows that the weld was not properly made or the slag would not be there. It should have been melted out.

Q. To what heat is the iron subjected in the process of welding?

A. To a white heat.

Q. What degree of heat?

A. I never made any laboratory tests and I couldn't say on that; I know it when I see it, is all.

Q. But this slag that we see here in Exhibit D-2 is evidence that that point in this shackle was part of the welding of the shackle?

A. It is not conclusively so, because I have seen it in ordinary bars.

Q. Would you say that that slag as we see it here was in that part of the bar which was welded in forming that eye?

A. It is possible—quite possible, and I will tell you why,—it could come from the ingot. That is a piece of steel from the rolling mill, that is a hole or cavity in it—a slag gets in there and it stays in there.

Q. Has the slag any strength in itself?

A. None whatever that I know of,—none to speak of.

Q. Is it iron?

A. It is a very,—well, I judge there is a certain percentage of iron in it—very small—same as scale.

Q. And would that slag stop right there or would it extend right through the balance of the shank?

A. It might be a couple of inches long, and it might be the full length of the bar.

Q. But with that slag in that area it would, in your opinion, have extended how far around from the full end of the shackle, because it is here now?

A. It might extend all the way around and it might have been closed up in the weld. That may have got in with the weld. When you are making a weld you have got to be careful—you get a slag in there and when you make that weld you close that slag up in there and there is no way for it to get out. It might be only three-quarters of an inch long if it is closed up in the weld, but if it is in the center of the bar it might run all through the bar.

Q. That area would show that, wouldn't it?

A. It is hard for me to say whether that was created by welding or whether it was a natural defect.

Q. You think Libellant's Exhibit D-3, which is the adjoining piece to figure 2, also shows the presence of slag on the smooth surface, that is what your answer would be?

A. On the smooth surface?

Q. Yes.

A. That is cut away; there was only 1/16th of an inch probably taken out of there.

Q. Then that shows the slag has been cut through?

A. Shows it was there, yes.

Q. That is, on this D-3 as well as D-2, it shows the slag ran through both pieces?

A. Yes.

Q. Do you know what the other side of figure D-3 shows?

A. It shows the same defective slag.

Q. What is the general composition of that fractured end?

A. The metal?

Q. Does it show crystallization or otherwise?

A. Crystallization, I would say, to a certain extent, although you cannot tell very well unless you use a magnifying glass or have the metal brightened up to see the crystals.

Q. You cannot tell without subjecting it to a magnifying glass?

A. Yes, I can to my own satisfaction.

Q. What is your own satisfaction about it?

A. That it is crystallization.

Q. What produced the crystallization?

A. Vibration.

Q. What amount of vibration?

A. That is an impossible question to answer.

Q. Do you mean vibration for a long period of time, as a day, week or month, or do you mean vibration for a short period of time, as a second or an instant?

A. Period of time,—I never knew of anything becoming crystallized suddenly.

Q. You never knew of anything becoming crystallized suddenly. Then you would say that that indicates a crystallization by vibration extending over a period of time of at least a week or more?

A. I wouldn't say how long on it.

Q. But not instantaneous,—not an instantaneous vibration?

A. It hasn't been our theory, or my practice, to find such a thing in the shop.

Q. I don't care about theories. I want to know about your knowledge and your practical experience.

A. Well, I will tell you, what I want to say is this: As far as vibration is concerned, and crystallization, it has been my experience that it comes on by degrees, although I think it is impossible for a man to tell whether crystallization takes effect at once or not—it is impossible to tell—it comes on by degrees.

Q. What is ductility when that term is applied to metals like wrought iron?

A. It is the life of the iron to hold itself together.

Q. The adhesive qualities of the iron?

A. The adhesive qualities of the iron, yes, sir.

Q. That is what the term ductility means, is it?

A. I don't know whether you would exactly put it that way or not.

Q. That is not an answer to my question, and I want you to answer my questions.

A. The ductility of the iron is the properties that hold it together, and the fibers of the iron, and the tendency to hold it together.

Q. Now, look at Exhibit D, figures 5 and 6, do you see the presence of any slag there?

A. I do.

Q. And if that had been subjected to a tensile test and found to stand 52,300 pounds, before it broke, to the square inch, do you think that the slag was much of a factor in weakening that piece of iron?

A. The slag was equal to the area, whatever the section of the slag was.

Q. Under the conditions I have given you and the conditions as you see them in those two pieces—those two pieces when formerly one being subjected to a tensile test and having developed 52,300 pounds tensile strength, slag and all, would you say that that slag had weakened that piece of iron appreciably?

A. To a certain extent I do.

Q. And to what extent?

A. That would be impossible to answer unless you take the square area of the slag that was there,—

Q. In other words, it would have stood a greater tensile strength than 52,300 if it has not been there?

A. If it had been the same grade of iron, yes, all the way through.

Q. Do you know how a tensile test is made?

A. I have read considerable of it; I never made any tensile tests.

Q. When did you read about it?

A. The last 19 years, off and on.

Q. When did you read last about it?

A. Oh, it hasn't been so long ago.

Q. You read it in the Encyclopaedia Britannica, didn't you?

A. No, sir.

Q. Was it read to you out of the Encyclopaedia Britannica last night or very recently?

A. I think I have heard it read from that.

Q. Do you think the Encyclopaedia Britannica is a standard work upon that science?

A. Well, I should judge so, although I wouldn't make an affidavit to such.

Q. What is meant by a fibrous fracture?

A. A fibrous fracture?

Q. Yes, of wrought iron.

A. Breaking the iron apart.

Q. That is what is meant by a fibrous fracture?

A. Yes; a tendency to break some crystals of the iron apart.

Q. That is all that is meant by that term, is it?

A. I am not a technical man and I wouldn't say.

Q. What is meant by a crystalline fracture?

A. That is where there are small crystals formed.

Q. Are there small crystals formed in a fibrous fracture?

A. There is to a certain extent, yes.

Q. And small crystals formed in a crystalline fracture?

A. Yes.

Q. Are they the same, practically, then?

A. I would consider so except one is larger than the other; the crystalline shows a larger crystal than the other

Q. But a fibrous fracture shows crystallization?

A. If it wasn't it wouldn't break apart.

Q. Now, does a tensile strength specimen of a crystalline fracture show much elongation?

A. You mean in this particular test?

Q. In any tensile strength specimen of a crystalline fracture—does it show much elongation?

A. The larger the crystals the less it will stand; we know that.

Q. But does a tensile strength specimen that has evidence of a crystalline fracture show much elongation?

A. It wont show very much, no.

Q. How much will it show?

A. I never went into the details of measuring that.

Q. It wont show any, will it, Mr. Lingerfeld?

A. Let me be able to see it under a microscope, but not under the natural eye, and I could tell.

Q. It would not be crystalline at all, would it, if it showed elongation?

A. As the cubes of crystallization have a tendency to break apart they might bend off, say, in that section, the longest section, they might bend that way, or they might slip this way, one breaking off from the other, when they are breaking apart.

Q. Is Exhibit D-3 a crystalline or a fibrous fracture, can you tell?

A. I should say it shows the effects of both.

Q. Is it a fibrous fracture?

A. I said both.

Q. Both fibrous and crystalline?

A. Yes.

Q. And do Exhibits D-5 and D-6 show a fibrous or crystalline fracture?

A. They show fibrous with the exception of a few very small places.

Q. Is this one fibrous, then?

A. I would consider this one fibrous, yes.

Q. Do you see any evidence of its being a crystalline fracture?

A. The crystals are very small,—you see only a very few there.

Q. You know that that piece has been subjected to a tensile test, don't you,—you understand that, don't you?

A. Yes, it certainly shows the effects of it.

Q. Now, when you put a piece of wrought iron under a tensile test what do you do? Do you know how that is done?

A. I told you I wasn't a technical man—never had any technical knowledge in my line.

Q. I am not asking you that. I am asking you if you know how it is done?

A. By making a test bar like that and pulling it with a machine.

Q. Does it break when you are pulling it?

A. If it is a poor piece of steel it will break immediately; if it is a good grade of steel it will stretch.

Q. But if it is a poor grade of steel it will break immediately?

A. Yes, sir.

Q. What do you call a piece of iron that breaks under a tensile test for elongation?

A. I would call that a piece of iron that was crystallized, unless it was subjected to a load exceeding its tensile strength.

Q. No piece of iron would break until it got beyond its breaking strength, would it?

A. There is lots of difference in iron.

Q. Well, any iron,—will you answer the question?

A. I don't remember the question.

Q. No piece of iron would break until it got beyond its breaking strength, would it?

A. No.

Q. What would you say about those pieces, 5 and 6, if you were told that they showed an elongation of 50 per cent,—what would you say then as to its being fibrous or crystalline?

A. I would say it was fibrous.

Q. And not crystalline.

A. All metal is crystalline.

Q. All metal is crystalline—where did you learn that?

A. My natural experience,—you cannot help but see it if you worked as long as I have with it.

Q. You mean metal is constructed of molecules, don't you?

A. Yes.

Q. That is what you mean by crystalline, isn't it?

A. Yes.

Q. What would be the reduction in area of a 50 per cent elongation of that piece, do you know?

A. I would have to stop and figure that out to see where the metal went to.

Q. I mean approximately.

A. Why, I should judge it would decrease in this particular instance here about 1/5 to 1/4,—50 per cent, probably.

Q. Does a fibrous fracture indicate ductility or inductility?

A. Ductility.

Q. What is ductility?

A. For the iron to hold together.

Q. And what is inductility?

A. Where it has no tendency to hold together.

Q. Brittle, you mean?

A. Brittle, yes.

Q. And in the fabrication of metals what do you call them when they are very brittle?

A. We call it a poor grade of metal.

Q. So if the welding of the shackle in evidence here, or if the shackle here in evidence shows a welding beyond the point of fracture, then I understand from your testimony that you consider that if it was welded the strongest point broke and not the weakest,—as I understand, you say if it was properly welded that that is the strongest part, and immediately adjoining the welding, where it is not hammered, is the weakest part, from 1/8 to 3/8 of an inch, and then it strengthens beyond that, is that right?

A. If the heating and welding is proper, and properly hammered in.

Q. Do these specimens here indicate proper or improper welding?

A. If that was welded it indicates to me an improper weld.

Q. So in your opinion that shackle there was improperly welded, was it?

A. From the indications of the center of the metal it shows that, but from the outside it doesn't show it, because it doesn't show where the metal was laid in.

Q. Aren't there slags in all weldings to some extent,—is there not a presence of carbon that cannot be eliminated?

A. It is nearly impossible to eliminate all carbon, yes.

Q. If this slag measures .08 of a square inch, do you think that is an excessive area for the size of the bar? The bar is 1.66 square inches, and the area of the slag is .08 of a square inch by actual measurement.

A. Well, it would be very hard for me to say on that unless I seen the piece of metal so I could see whether that went all the way through or not—from end to end.

Q. What is meant by the elasticity of metal, do you know?

A. Elasticity of metal means the life to stand up and bend time and time again without breaking.

Q. Can you determine from those specimens to what degree of heat that shackle was subjected in welding?

A. No, sir, I cannot.

Q. Can you tell whether it was subjected to the proper amount of heat?

A. It must have been enough or they would never have been able to lay the ends of those welds in the way they are.

Q. Can you state whether or not, from those specimens, it was properly treated after heating?

A. No, sir.

Q. You would not say that that had been over-heated, would you, from anything you see there?

A. No, I couldn't say that.

Q. And when you referred to crystallization as a breaking down of the structure or crystals enlarging you mean the molecules, don't you?

A. One and the same.

Q. It is one and the same in your language?

A. Yes, sir.

Q. Now, vibration has a tendency to make metal brittle, doesn't it, and non-ductile?

A. That has always been my experience.

Q. And if it is brittle it does not elongate and has not a fibrous end, has it?

A. No.

Q. When it is broken?

A. No, it hasn't a fibrous end when it is broken. It has deteriorated and broken down.

Q. And you don't know of your own personal knowledge whether the shafts and other metal that have been submitted to you were properly fabricated at the time they were originally made or not, do you?

A. I know they showed the signs of being a fine grade of metal when they were put in the boats, because I have put in many of them and know how they look.

Q. How could you tell?

A. By cutting them in two.

Q. Were they ductile or non-ductile at that time?

A. Ductile.

Q. And the vibration of the engines reduced that ductility until there was a non-ductile condition there, wasn't there?

A. Yes, sir.

Q. And that is what was the matter with the shafts?

A. Caused it to crystallize and break away.

Q. That is what you call crystallization?

A. Yes, sir.

Q. That is what you mean by crystallization?

A. That is what I mean by my expression, yes, sir.

Q. What is the difference in fabrication between wrought iron and steel?

A. Wrought iron is more of a ductile metal.

Q. What is the difference in the fabrication?

A. Steel is made up of a series of small molecules of metal, or cubes.

Q. What are the elements there?

A. It shows crystallization in a very small even form.

Q. Yes, but what are the elements of the metal itself?

A. You mean the different properties?

Q. Yes.

A. I couldn't say that just exactly.

Q. What are the elements of wrought iron?

A. They are the same, only it hasn't quite as much carbon in it.

Q. They are just the same only there is more carbon in steel?

A. There is more carbon in it, only, of course—

Q. How do you work the carbon out of the metal to pro-

duce wrought iron, or how do you inject the carbon in to produce steel, whatever it is?

A. Steel is made by putting in a certain percentage of spiegel ore.

Q. Putting it in what?

A. In the charge of metal when it is being melted.

Q. To what metal—what is the base?

A. Steel.

Q. You say steel is made by putting something in it. What is the base before you put this something in it to make this steel?

A. It is iron.

Q. Just explain the process of making steel.

A. The process of making steel is first to smelt the ore, and the next take it to a blast furnace.

Q. And what degree of heat is it subjected to?

A. I don't know what degree of heat it is, but I know it is a melting heat.

Q. And only that?

A. More than that, because you have to blow out the impurities of the metal,—it has to be a high heat to blow out the imperfections of the metal.

Q. From the furnace to the mill what process is it?

A. It is repeated back in the mill and rolled. First the metal comes from the blast furnace, then it goes to the converters which convert it to steel or low grade of iron, whatever property you want.

Q. How do you produce wrought iron, or fabricate it?

A. It never has any silicon in it to speak of it, only a small percentage. The ore would probably carry a high enough percentage of carbon to answer the purpose of making an ordinary iron—it is a very low carbon, in wrought iron.

(Whereupon court adjourned until 10 A. M. the following morning.-

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MORNING SESSION,

NOVEMBER 15, 1917, 10 A. M.

G. E. LINGERFELD: On the witness stand.

CROSS EXAMINATION (Cont'd.)

BY MR. GORHAM:

Q. In the formation of a weld, Mr. Lingerfeld, isn't it

a fact that the hotter the metal the more readily it oxidizes?

A. Yes.

Q. And forms a film?

A. It usually throws that film off.

Q. What is used to throw that film off?

A. We usually use some kind of a flux. I use Ajax Welding Compound, generaly.

Q. Don't they use borax for fluxing?

A. Not any more—blacksmiths have almost quit that.

Q. I don't mean blacksmiths—I mean at fabrication shops where they are molding hundreds of tons of metal or making hundreds of tons of metals?

A. I wouldn't say because I have not been connected with that in recent years.

Q. What is the effect of the flux?

A. It tends to clean the iron—wash away the slag.

Q. Increasing the oxidizing process?

A. Yes.

Q. And that is what produces the slag, is it not?

A. The oxides throwing off, yes.

Q. So the slag is the result of that condition, isn't it?

A. Yes, and the impurities of the metal on the surface.

Q. And the ingredients of the slag are iron oxide or whatever is used for the flux, isn't it?

A. Yes.

Q. And there isn't any carbon there at all—the carbon is gone in that process?

A. I am not altogether certain of that, whether the carbon is altogether gone. You can hammer it afterwards, and if it didn't have carbon you wouldn't be able to hammer it.

Q. That all depends on what particular piece of iron you are working on, doesn't it?

A. Yes, as to whether it has carbon in it.

Q. A good first class wrought iron has a very low per cent of carbon?

A. Very low.

Q. What is the difference between the blast furnace slag and the slag in welding?

A. The blast furnace slag is a silicon substance.

Q. Silica sand, isn't it?

A. Yes.

Q. And some limestone?

A. Yes.

Q. I think you testified yesterday that vibrations or shocks would have a tendency to crystallize wrought iron?

A. I did.

Q. And that vibration might be a sudden shock of sufficient force to crystallize the iron, or it might be a great number—millions, for instance, of small shocks which in the course of time would have a tendency to crystallize the metal?

A. Well, in my experience I have never seen a piece that crystallized suddenly.

Q. You have not?

A. That is to my knowledge; it has always been my experience that crystallization comes on by a series of shocks or vibrations created from any source.

Q. So long as the force of the shock is sent to the metal—

A. That is it.

Q. What effect does that vibration have upon the metal other than crystallization? What is the effect of crystallization on the metal?

A. It tends to break the crystals apart.

Q. Yes, but what effect has that upon the general structure?

A. It weakens it.

Q. Is that all?

A. Yes, to break those crystals apart and weaken the metal, is the only solution I know of, and the only one I would express on it.

Q. It weakens it throughout, doesn't it, the entire structure uniformly?

A. It is uniform, generally so; the metal might be of a better grade in some parts of a bar of iron than it is in another, because one side of the iron might be hotter than the other.

Q. But if it had proper heat treatment in the fabrication that would not be true, would it,—it would be uniform throughout?

A. It may show more ductility in the center than on the outside.

Q. If properly treated?

A. Yes, if properly treated, because the flux you use on it tends to keep your iron cold on the outside until it gets hot through the center, and if that flux had not been properly applied your metal would not be so alive on the outside as it was where it was worked.

Q. Does the presence of crystallization produced by vi-ration reduce the elasticity of the metal?

A. Sure—it certainly does.

Q. And when you reduce the elasticity the metal be-omes more brittle?

A. That is caused from crystallization.

Q. Is there more or less carbon in steel than in wrought ron?

A. There is more carbon in steel.

Q. How much more?

A. Well, I would judge from one per cent would be, ou might say, wrought iron, and steel they run the carbon ray up. A good machine steel, say, 65 per cent carbon.

Q. That is to harden it, isn't it?

A. Harden and strengthen the metal.

Q. And harden it?

A. Yes, it has a tendency to make it harder.

Q. And the harder it gets by the presence of carbon n it, the more brittle it is, isn't it?

A. Yes.

Q. Now, if these vibrations that you have spoken of, ransmitted through the cable to the shackle having a very ow percentage of carbon present in the shackle, would rystallize the shackle, those same vibrations would have a tendency to crystallize the steel cable, would they not?

A. It would have a tendency to, but not so much be-ause in a cable you have a core and that core tends to take up the vibration or shock of the wire, as they are twisted around—the strands are laid around a core, and that core tends to take up the shock of the vibration, and your cable it has a tendency to come and go like the balance spring of a watch.

Q. How large is the core?

A. Generally about 1/6, or something like that.

Q. 1/6 of the diameter?

A. Yes, or usually about the size of one of the outside strands.

Q. But the tendency would be, nevertheless, to crystal-lize the steel in the cable, wouldn't it?

A. Oh, yes—yes, sir.

Q. And could you estimate approximately whether or not the effect of three trips of the barge Bangor, with the use of this shackle and with these constant vibrations sub-mitted through the cable upon the shackle, would be greater upon the shackle than it would be upon that cable and that tow line, which had been in use for a year and five months?

A. I wouldn't say, because one piece of metal will take an unlimited series of shocks while another will only take a few when it will let go,—I have seen that time and time again.

Q. Here is a wire cable that was used for a year and five months. The hypothetical question given you by counsel was if the vibrations received on those three round trips from Seattle to Anchorage, on this shackle, with the barge Bangor in tow, would have a tendency to crystallize the shackle. If those vibrations would have a tendency to crystallize the shackle, then wouldn't the use of the cable on board that tug as a part of this towing device for a year and five months result in as much crystallization to the cable as to the shackle?

A. I don't know about that—I wouldn't hardly say on that, because the steel cable is so much better grade of material than the shackle is.

Q. It is more susceptible of crystallization, you say, by reason of the higher percentage of carbon present?

A. Yes, but it has the core of the cable to take care of that.

Q. But that is more than off-set by the susceptibility to crystallize to a higher degree than the shackle, which has not got the carbon. You cannot figure that out, can you?

A. I cannot agree with you there,—I would not attempt to agree with you.

Q. Can you figure it out approximately?

A. No, I cannot.

Q. But whatever crystallization takes place in the cable, in each individual strand of wire, of course would take place throughout the texture of that wire?

A. Yes, I judge it would, because the wire keeps traveling around the strand every so often; they pass inside and then outside again.

Q. In other words, when a piece of metal is subjected to a constant vibration sufficient to produce crystallization you think that the crystallization would be uniform throughout the structure—practically so?

A. Well, on as small a piece of material as a single strand of cable I presume it would; but on a larger piece I am rather of the opinion that the outside would become crystallized first—that is my practical experience.

Q. Take a bar of metal and subject it to constant vibration sufficient to produce crystallization, the crystallization would be uniform throughout the bar?

A. It will crystallize on the outside first because it

bar is stretched laterally, back and forth, and it is subject to more strain than the center of the bar is.

Q. But the crystallization would be throughout the structure—

A. Not necessarily so because you might have a piece of metal that would be a little bit off in the manufacture.

Q. I am now taking a good piece of wrought iron—good throughout its entire structure—a bar of good wrought iron subjected to a series of shocks or vibrations similar to the vibrations received on this shackle through the cable, as propounded to you by counsel for the claimant—assuming it had such vibrations subjected to it.

A. It all depends upon the shaft of that piece of metal, whether it had a curve in it—whether it was bent—it all depends upon that. The weakest place would take the greatest amount of crystallization.

Q. It would?

A. In my opinion.

Q. It would not be uniform through the structure when the entire bar is vibrating?

A. It would not be uniform throughout the structure. You understand, the vibration is greater in the center here than it is right up here, unless this bar should be smaller here and then it will have a tendency to break that way. There is no space there for what you call a cool-out to absorb the shock—there is no space there for a cool-out to allow it to spring, you understand; but if this piece here had been drawn down in a fullet it would spring more.

Q. You are talking about steel now, aren't you?

A. Iron or steel either one will do it.

Q. Let us stick to iron. Now, I will put the question again. If a bar of wrought iron, properly heated in its fabrication, was subjected to shocks or vibrations sufficient to crystallize it, would it be crystallized throughout its entire structure, uniformly?

A. I don't think so, no.

Q. How would it be crystallized?

A. Wherever the greatest amount of the strain or vibration occurred.

Q. It would be crystallized where the greatest amount of strain or vibration occurred?

A. It would be crystallized more there than it would through the bar.

Q. But the vibration would be uniform throughout the bar, wouldn't it?

A. No, because you take a violent strike, for instance,

the vibration is greater here where your blow is than it is here?

Q. Is it, though? Let us see if it is.

A. Why wouldn't it be?

Q. You are not asking me questions, sir—you are the witness.

A. Sure it would be.

Q. Explain why it would be.

A. Because it has got to come and go through there and the vibration would be greater in the center because it has a tendency to play through there back and forth.

Q. With the pressure of the boat on it?

A. Yes.

Q. Then if you had a curved piece of wrought iron with the vibration transmitted to the center of the curve, that would be where it would crystallize most—is that the idea?

A. I was speaking of a straight bar.

Q. I am now speaking of a curved bar—I know you were speaking of a straight bar—now we are coming to a curved bar. You said the crystallization would take place where the greatest vibration was, and the center would be the place of greatest vibration. Now, if the bar is curved and the vibration is transmitted to the center of the curve, then that would be the weakest point, so far as crystallization is concerned—is that right? Is that a proper deduction from your former statement?

A. It might be in some instances—in others it would not.

Q. In what instances would it be, and in what instances would it not be?

A. It would be,—I would judge it would be if the bar carried a full uniform size.

Q. I am not talking about a circle—I am talking about a curved bar?

A. A half curve?

Q. A curved bar.

A. There might be—we would naturally think so but I wouldn't say that it would always pan out—I wouldn't say whether it would do that on a piece of that kind—no, I wouldn't say.

Q. Now, if your hawser was a rope hawser instead of a cable—wire hawser, there would be still less tendency to crystallize the shackle, wouldn't there?

A. In my opinion, yes, sir; that is my opinion of it, yes, sir.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. If the wire hawser had 6 strands with 19 wires to the strand and a core in it, would there or would not be a greater tendency to crystallize than if there were only a few strands and a few wires to the strands?

A. I cannot agree with you on that.

Q. I am just asking you the question—which would be the more apt to crystallize from vibration, one with a great many wires in a strand or one with a few wires?

A. The one with the few wires.

Q. And what effect upon the vibration would the core have—would it increase or diminish the probability of crystallization?

A. You mean in a cable of a few strands?

Q. With any number of strands—what effect does the core have upon the crystallization?

A. Well, the only thing is it would have a tendency to take up the shock.

Q. Do you know what the core is made of in wire cables?

A. It is usually made of hemp.

MR. STRATTON: That is all.

(WITNESS EXCUSED.)

R. R. TINKHAM: Recalled as a witness on behalf of the claimant, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION (Cont'd.)

BY MR. STRATTON:

Q. I wish you would examine these exhibits D that are part and state whether or not from your examination of these you can say where the break occurred, whether above the weld or in the weld or below the weld. You have already examined those this morning, haven't you?

A. Yes.

Q. Where, in your opinion, is the break in that shackle?

A. My opinion is that the break is immediately beyond the weld.

MR. STRATTON: That is all.

THE COURT: What do you mean by beyond the weld —do you mean near the eye?

A. No, sir, further away from the eye than the weld.

CROSS EXAMINATION

BY MR. GORHAM:

Q. What is there there that the eye can observe that indicates that the weld, exhibit D-2, does not run down to the end of it? What indicates that the weld isn't the full length of that shank?

A. There is no indication whatever on the face of it of any welding joint extending that far.

Q. Could there be such a welding and there be no indication of it?

A. It is barely possible there could be such a weld—it would be very unusual—it would have to be a perfect joining of the metal—that is, fusion of the metal.

Q. And that depends upon what?

A. It depends a great deal upon the impurities which are always present in the iron, and the amount of work and the manner in which it was worked on the anvil.

Q. And doesn't that slag in that piece have some bearing upon the question as to whether the weld runs down to the end of that shank as you have it in your hand?

A. Not necessarily.

Q. Not necessarily but might it have some bearing?

A. The only bearing would be the same as it might be anywhere else in the iron. Impurities are always present in wrought iron of a slag nature.

Q. Now, you were referring yesterday to vibrations, and I think the hypothetical question was given you that if this shackle had been used in a tow between Seattle and Anchorage and return on three voyages, a distance of upwards of 10,000 miles, with the vibration on the cable during the strain of towing, whether the effect of that would be to crystallize the shackle?

A. I believe a similar question was asked, yes, sir.

Q. That is your opinion, is it, that the tendency would be to crystallize the shackle?

A. It is quite possible.

Q. It is possible but is it probable?

A. Yes, I should say it was probable.

Q. And would that crystallization be uniform throughout the shackle?

A. Not necessarily.

Q. Why not?

A. Because of the difference in the formation of the iron, to begin with, and the fact that the vibrations might not be uniform.

Q. Where would the crystallization take place under such shocks?

A. Take place in the parts of the metal subject to the greatest vibrations.

Q. And what would be those parts under those conditions?

A. Between the fixed points ordinarily.

Q. What do you mean by "between the fixed points"?

A. The point where the strain is applied to the part.

Q. And if the shackle was so used that the cable contact was in the center of the curve and the chain contact was on the pin through the eye, where would the vibration be greatest?

A. In my opinion it would be in the shanks of the shackle—midway between those two points.

Q. Between the shanks. I thought you said it would be greatest where the vibration—

A. I said the fixed points. The fixed points are the points where the strain is applied.

Q. And if you have a curved piece of iron and a loop through the curve, with a stress on the loop where is the strain applied?

A. The strain is applied at the point of contact.

Q. The strain is applied at the point of contact?

A. Yes, sir.

Q. Now, if there were any crystallization under those conditions would it be at the point of contact?

A. The maximum crystallization would be where the maximum vibration was, which would be between the points of contact.

Q. What is the difference between steel and wrought iron?

A. The difference between steel and iron is—

Q. Wrought iron.

A. Steel and wrought iron is mainly in its chemical composition.

Q. What is the difference in the chemical composition?

A. A much higher carbon content in the steel.

Q. Which is the most ductile?

A. Wrought iron.

Q. What is ductility?

A. Ductility is the property of a metal which allows of extension or capable of being worked.

Q. Capable of elongation?

A. Yes, sir.

Q. What is a fibrous fracture?

A. Well, it is a term ordinarily applied to a fracture of wrought iron—a breaking in, or a breaking and bending when the bent surface has been nicked—those are two ordinary tests on wrought iron.

Q. What is a crystalline fracture?

A. It is one that shows a granular surface after fracture.

Q. What is the difference between a fibrous fracture and a crystalline fracture?

A. You mean in appearance?

Q. No, what is the difference? Any difference in them?

A. Why, the granular fracture would indicate that the metal was more brittle than the metal having the fibrous fracture.

Q. And if a fibrous fracture was shown in a tensile test specimen which had been subjected to a test of 52,300 pounds, showing a 50 per cent elongation and a 35 per cent decrease of area, what would you say as to its being crystalline or not?

MR. STRATTON: That particular part that was tested you refer to?

MR. GORHAM: Yes.

A. Well, it would depend somewhat on the character of the test and the nature of the test because ordinarily the best test of any ductile iron can be made only with a uniform dimension—uniform section through a distance of approximately 8 inches; and another factor is the time in which it takes to pull. The strength of a ductile metal can be apparently very much increased by prolonging the time of pull.

Q. What instrument do you use with the testing machine, attached to the test specimen, in order to make those measurements—do you know what it is called?

A. I don't just understand you.

Q. Do you know what an extensometer is, in the testing of materials?

A. It is the instrument for measuring the elongation.

Q. Now, assuming the piece that I referred to had been properly subjected to a tensil test,—how would you subject a piece of iron to a tensile test? What is the proper method of testing the tensile strength of a piece of iron?

A. By properly inserting it in the jaws of a testing machine and applying a load to the test specimen uniformly.

Q. And gradually?

A. And gradually.

Q. Now, if a piece has been so tested and shows an elongation of 50 per cent and a reduction in area of 35 per cent, and upon breaking a fibrous fracture, would you say that piece had been crystallized?

A. Not to any great extent.

Q. Not at all, would you say?

A. Why, a bar of wrought iron is always crystalline. The fibrous appearance of iron is entirely due to the method of manufacture and the impurities contained in it.

Q. Now, if it is fibrous that indicates non-ductile metal?

A. No, sir.

Q. Indicates ductile metal?

A. More or less ductile metal, yes, sir.

Q. And if it is a crystalline character that indicates non-ductility and brittleness, doesn't it?

A. Yes, sir; and in the test for its tensile strength the fact that it had elongated 50 per cent and its area had been reduced, as you stated, 35 per cent would—

Q. Indicate the absence of crystallization, wouldn't it?

A. It might indicate that, but when you speak of elongation of 50 per cent you have to take into consideration the distance between the contact points, and as I say, elongation is ordinarily computed on a surface of 8 inches, right between the contact points.

Q. It can be computed on a small surface, can't it?

A. Yes, sir, but it should be distinctly understood as to the base on which it is computed.

Q. You didn't hear the testimony of Mr. Avis in this case, did you?

A. No, sir, I was not present.

Q. Have you had occasion to make tests for tensile strength of wrought iron?

A. Yes, sir.

Q. And did such tests show elongation?

A. Yes, sir.

Q. And reduction in area?

A. Yes, sir.

Q. Indicating a high grade of wrought iron?

A. Well, I wouldn't say a high grade of wrought iron, but it would indicate wrought iron. Of course a great many grades of iron, beginning with wrought iron up to a chrome grade of steel, all show more or less ductility of that nature.

Q. Let me ask you a question—what is a crystalline fracture?

A. It is a fracture showing a granular or crystalline area.

Q. And the result of a sudden shock?

A. Not necessarily.

Q. Well, if there had been a sudden shock and the fracture was of a crystalline nature, then I will ask you if a tensile test specimen was chosen of that fracture and the test specimen showed a fibrous fracture, after testing, and a 50 per cent elongation, and a 35 per cent reduction in area, what would you say as to the character of the metal throughout?

A. That would depend altogether on the nature of the piece—nature of the iron.

Q. If it was a good first class piece of wrought iron?

A. If it was a bar of iron without any work on it at all, is that what you mean?

Q. A bar of iron such as this shackle.

A. That shackle has had a great deal of work in forging the ends, which would tend to produce a different grade of metal throughout.

Q. Have you ever been engaged in the investigation of railroad equipment?

A. Only incidentally. I was connected with a company one time who made a great number of logging cars, and the only period of time that might be of interest is when our attention was called to the coupling-pins, which are of wrought iron. We were troubled with crystallization in these coupling-pins, which it was necessary to remove by annealing.

Q. Do you know what heat treatment those coupling-pins had been subjected to in their fabrication?

A. Only by hearsay.

Q. That is, you had no personal knowledge of it at all?

A. No personal knowledge, no, sir.

Q. Did you ever make any investigation of wheels and axles of wheels of railway cars broken in wrecks?

A. No, sir.

Q. Have you ever done any research work in respect to heat treatment of metals and the effect of high temperature upon them?

A. What do you mean by research work—laboratory work?

Q. Yes.

A. No, not laboratory investigations. I have had considerable observation of such treatment.

Q. What is the yielding point of wrought iron?

A. Approximately 2600 or 2700 degrees Fahrenheit.

Q. Isn't it higher than that, Mr. Tinkham?

A. It might be slightly but not very much.

Q. And at what degree Fahrenheit will it melt without burning?

A. Just what do you mean by burning?

Q. What would be the effect of burning? Let us put it that way.

A. Burning the metal?

Q. Yes.

A. Well, it would tend to disintegrate it.

Q. It would crystallize it, wouldn't it?

A. It could be termed,—yes, it could be called crystallization.

Q. Now, what degree Fahrenheit in the heat treatment would produce that crystallization in wrought iron?

A. That is variable—something that cannot be absolutely accurately ascertained.

Q. It cannot be,—how do you know what the temperatures are?

A. They can get it close, but it is approximate.

Q. What instrument do they use?

A. I don't know as I could give you the technical name.

Q. Do you know what a pyrometer is?

A. From its name it is an instrument to determine heat.

Q. Do you know the different kinds of pyrometers there are?

A. No, sir.

Q. Do you know of an electrical pyrometer?

A. No, sir.

Q. That registers the heat through a thermocouple and a dial?

A. No, sir.

Q. You don't know that. What other effect has the heating of wrought iron at a high temperature?

A. It always produces much crystalline structure.

Q. Any proper heat treatment produces a crystalline structure?

A. Yes; any great heat on a metal will produce that.

Q. Has it the effect of softening the metal?

A. Not necessarily.

Q. Does softening add to ductility?

A. Softening and ductility might be used in the same sense.

Q. Did you ever use a scleroscope in your investigations or laboratory work?

A. No, sir.

Q. Do you know what a scleroscope is?

A. No, sir.

Q. Do you know what its purpose is?

A. No, sir.

Q. Now, you say you have made some tensile tests of wrought iron?

A. Yes, sir.

Q. In laboratory work. What is the modulus of elasticity?

A. It is the relation of the expansion of the metal to the stress applied.

Q. Did you make a determination of the modulus of elasticity in those tests?

A. Yes, sir.

Q. How did you determine that?

A. I would not be able to state now. Those are formulas and investigations that unless one is using them right along one would have to refer back to them in order to make use of them.

Q. But it is a method, isn't it—it isn't a formula?

A. It is a method.

Q. What is the method? I am not asking you to give me a formula but a method.

A. To determine the elongation as you were speaking of a few minutes ago—the actual elongation of the bar, and to establish the actual load applied.

Q. Do you know what a graphic record is?

A. Yes, sir.

Q. What is a graphic record?

A. It is the platting of values on cross-sectional paper to determine the curve.

Q. Did you make such graphic records in your investigations?

A. Yes, sir.

Q. Would those records show whether or not the metal tested possessed ductility?

A. Yes, sir.

Q. How would they show it?

A. By the elongation indicated on the chart with respect to the load applied.

Q. And the elongation as registered on the chart would produce a curve if there was great ductility, would it not?

A. Yes, a variable curve.

Q. Now, these books that you referred to, the American Civil Engineers' Handbook, that is a civil engineer's handbook, is it not?

A. Yes, sir.

Q. And it does not pretend to treat of the work of a testing engineer except incidentally, does it?

A. It is supposed to give all fundamental information pertaining to civil engineering.

Q. But it is for use in civil engineering and not for a testing engineer?

A. Yes, sir.

Q. And you would not call it a testing engineer's handbook, would you?

A. No, sir.

Q. And Kent's Mechanical Engineers' Handbook—that is for mechanical engineers, isn't it?

A. Yes.

Q. And you would not call it a testing engineer's handbook, would you?

A. If you consider a testing engineer as a specialist who does nothing but test materials I would say not, because it is broader in its scope. However, it gives information along those lines, naturally.

Q. It gives some information but it would not be called a testing engineer's handbook?

A. No, sir.

Q. It is primarily a mechanical engineer's handbook or a civil engineer's handbook, as the case may be?

A. Yes, sir.

Q. And an electrical engineer's handbook you would say the same, would you not?

A. Yes, sir.

Q. So that if you were a testing engineer doing a large amount of work you would have your testing engineer's handbook with you instead of a civil engineer's handbook, wouldn't you?

A. Possibly, depending upon what it was needed for; I use several handbooks in my work.

Q. And if you were a civil engineer or a mechanical engineer, then you would have the handbook most useful for that profession?

A. It depends upon the application of the profession, of course.

Q. I mean if you were doing the work of a civil engineer.

A. Civil engineering is rather a broad subject.

Q. But the profession of a testing engineer is a highly specialized profession of itself, isn't it?

A. I don't know of a testing engineer's handbook—just for that one profession.

Q. They have a society, do they not?

A. Yes, sir.

Q. Called the American Society of Testing Engineers?

A. Yes, sir.

Q. And they have journals?

A. Yes, sir.

Q. Which contain the results of their investigations?

A. Yes, sir; I have some of them.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. From your examination of this shackle where, with reference to the break, would be the greatest vibration caused by the tremble or vibration of the shackle attached to the towing line while towing?

A. It is merely a matter of opinion. I would state it was between the two points of the application of the stress—that is, between the pin and the yoke, where the cable was attached.

Q. Would you expect to find in testing a specimen of wrought iron more or less crystallization in that portion of it that had been welded as compared with the testing of a portion of the bar that had not been welded? In other words, where would be the greatest vibration, in the portion that had been welded or in the portion that had not been welded?

A. In the portion that had been welded.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. And less crystallization?

A. Yes, sir.

Q. I think you testified yesterday in response to a hypothetical question put by counsel that you would expect to find crystallization in a shackle that had been subjected to vibrations transmitted through a steel cable hawser over three trips from Seattle to Anchorage and back, approxi-

mately 10,000 miles—I think that question was put to you and I think you testified that it might be possible?

A. Yes, sir.

Q. That sufficient crystallization would take place to break the shackle?

A. Yes, sir.

Q. As the result of these constant vibrations?

A. Yes, sir,—I said it was quite possible.

Q. Transmitted through the steel cable hawser?

A. Yes, sir.

Q. Now, if a Manilla rope had been used instead of a cable hawser on those three trips what would your answer be in reference to the shocks and crystallization?

A. The same.

Q. It would be the same?

A. Yes, sir.

Q. You think the vibration of a Manilla rope would be as great as a cable hawser under those conditions?

A. Used for the same purpose.

Q. I didn't ask you that,—I asked you if the vibration would be the same.

A. I said it would if the hawser is used for the same purpose.

Q. And the shock to the iron shackle will be the same?

A. The shock due to the vibrations would be the same, yes, sir.

Q. Would be the same?

A. Yes, sir.

Q. And the fact that the hawser was Manilla rope instead of steel cable would not make any difference.

A. No, sir.

MR. GORHAM: That is all.

QUESTIONS BY THE COURT:

Q. Now, Mr. Tinkham, I hand you Libellant's Exhibit D, which is a drawing of a shackle, which is supposed to be the shackle in question in this suit, and is supposed to have broken when attached to a steel cable, as has been described to you, which shackle had been used on three trips from Seattle to Anchorage, and it broke on the last trip.

MR. STRATTON: That was the fourth trip.

THE COURT: It was the last trip. A portion of that shackle, the part that remained on the barge, was submitted to a test to determine its tensile strength. The test was

made of figures 5 and 6. The shackle is supposed to have broken at the line X on one side, and the line Figure 3 on the other side, and figures 5 and 6 represent the tested portions. What does all that portion indicate as to the strength of the shackle at the points where it broke?

A. Well, it would be hard to give an exact answer to that because of the great possibility of there being a difference in the character of the metal at those two points. The test piece is taken apparently—at least a part of it would be in the weld—possibly the outer end of it would not be.

Q. What I am trying to get at is, what does the testing of one portion of a piece of iron indicate as to the strength of some other portion of that iron?

A. Merely relative is all.

Q. What would be the relation in this case if you test that part that I mentioned of the iron and find its tensile strength is so much, what does it indicate and what is the relation as to that portion where the shackle broke? Can you figure that out? That is what I am trying to get at.

A. Personally I would not consider that it would necessarily give an accurate result in relation to the broken portion because it is taken from a part of the shackle which has been subjected to different treatment from the part of the shackle where the fracture occurred.

Q. How would you go about determining, then,—if you knew the tensile strength of that portion I have indicated, how would you go about determining the tensile strength of the shackle at the point it broke?

A. It would be impossible to determine that scientifically.

Q. How much of a margin would you allow—

A. That also would be impossible to state because of the nature of the iron. The only way you could get a positively accurate test of the portion of the iron where it was broken would be to test the part of the iron immediately contiguous to the broken portion, and under the mechanical system of testing iron that would be almost impossible to do, as one end of the test specimen must be stretched in the jaws of the machine, and one end would then come some ways away from the fracture.

Q. Then what is the use of testing, if that is the case?

A. In a bar of iron taken from a mill, it has all been subjected to the same treatment in its manufacture. It has come from the same puddle in the furnace, it has been run through the rollers of the mill under the same process, so that every part of the bar is subjected to the same treat-

ment; and when we specify a certain grade of iron which must stand a certain tensile strength, and a test piece is taken from one of these bars which is to go into the work, and a test made, the supposition is that every part of this bar is of the same consistency because it has undergone the same treatment exactly; and if you take a piece off the end of the bar and test that, the supposition is—and quite accurately so—that the remainder of the bar is the same, but after you take the bar and put it into a manufactured piece, then this manufactured piece is different in its different parts, depending on the treatment that the different parts of the manufactured piece have undergone in their manufacture. One part of the iron might be of one character, and one part of another, and that is particularly true in all forging work where iron has been subjected to a very high heat and then parts of it subjected to the blows of a hammer and other parts neglected; and that has application to this particular case, in my judgment—when once the metal has been raised to the heat necessary to weld it, which is almost the melting point of iron, the structure becomes very highly granular—crystalline—very largely a crystalline structure—and that almost entirely removes the ductility of iron and makes it brittle, and the way it is overcome is under the hammer, by pounding this hot iron until it has lowered to a temperature of almost half—until it has cooled to a temperature of almost 1200 degrees, and in doing that the ductility of the metal has been restored to the point where it originally was when it came from the rolls.

Q. The part that has been hammered?

A. The part that has been hammered, yes, sir; and where the danger lies always is in the part of the bar which has been raised to a high heat and not had the proper pressure or hammering upon it while the bar is cooling off. If this occurs the crystalline structure then remains in such parts, and that is the reason that in a manufactured article of this nature different parts of the article may be of a different character, whereas the bar from which it was manufactured was originally undoubtedly the same throughout its length. That is a very close approximation, that it was the same throughout its length when the man took the bar from the rack to make the shackle.

Q. It sometimes happens, does it not, that in spite of all you do there is some slag?

A. Yes, sir.

Q. And there is slag in parts of a bar and not in other parts of it?

A. Yes, sir.

Q. How can you tell in the parts you do not test that there is no slag?

A. That is something that is never known, but in the process of manufacture of wrought iron, where impurities are reduced to a very small amount through the different processes through which it goes you are reasonably certain that the amount of slag and other impurities in the bar are very low—that they would not make a serious structural difference in its use.

Q. In other words, I understand you to say that it is possible but not probable that there is enough slag in the rest of the bar to hurt it?

A. I would say that it is very improbable that there would be in a wrought iron bar.

Q. But it is possible there might be?

A. Well, it would be very exceptional. I don't know of an instance where that has occurred. You see in the manufacture this slag is broken up into very fine filaments, and that is what gives the iron its structure.

Q. There is a little slag there, isn't there?

A. Yes, sir, I noticed that.

Q. Does your science allow you to presume that that slag extends clear through that bar?

A. No, sir; it comes in pockets.

Q. And there is no way of telling where that pocket is is there?

A. No, sir.

Q. And there is no way of telling whether that pocket exists or does not exist?

A. No, sir.

Q. Then how can you tell much about iron?

A. It is so small in its area that it makes no material difference in the strength of the bar in which it occurs.

Q. What would be the difference that that much slag in that bar would cause in its tensile strength?

A. It would be in proportion to its area.

Q. That would have to be figured out?

A. By accurate instruments.

Q. Would it be as high as 5 per cent, approximately? Would it affect the tensile strength of that bar as much as 5 per cent, approximately, to the best of your judgment?

A. My judgment would be it would not be that high because the main stress is in the outer portions of the bar and as your bar grows larger it grows relatively weaker.

THE COURT: Thank you.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. In the process of making a shackle, designed for use by a ship, from a bar by heating and bringing the metal over for the purpose of making an eye you say that the hammering at the place of weld would restore the ductility at that place?

A. Yes, sir.

Q. And the manufacturers, knowing, or if they did know that that was a fact and also did know that the adjacent parts of the metal which had been subjected to that heat treatment if not hammered would crystallize, they would hammer those also, wouldn't they?

MR. STRATTON: How does he know?

MR. GORHAM: I am asking him wouldn't they do that in the ordinary course of the fabrication of a shackle.

THE WITNESS: An attempt would be made to do so, but of course we all know that not all manufactured products are perfect, and in our inspection of manufactured materials it is impossible to get a perfect delivery of goods.

Q. But in this instance we do not know that they did not do it, do we?

A. No, sir.

MR. GORHAM: That is all.

THE COURT: There is one other question I would like to ask you. I understood you to say that if this tow line from the barge to the tug were Manilla rope that it would not make any difference in the vibration—that is to say, that the shackle would be crystallized just as rapidly if the vibration were caused by the Manilla rope as it would if it were caused by a wire cable?

A. I said that, yes; and the reason for my statement is that the crystallization is caused by the vibration or impact submitted to the shackle, which is independent entirely of the agent which imparts that vibration.

Q. (By the Court): Well, but wouldn't a Manilla rope, when it comes in contact with a shackle, give more than a steel cable—it wouldn't be as hard a contact?

A. Well, the supposition is that the Manilla rope or tow line is under the same stress as the wire rope, if it is pulling the same load.

THE COURT: It is pulling the same load but the contact of the Manilla rope with the iron shackle would not produce as much vibration and as violent a vibration as the contact of two pieces of steel, would it, or the contact of a piece of steel with a piece of iron?

A. Well, the connection would have to be metallic—even with Manilla rope it would be made with a metallic thimble, so the contact is metallic. It is merely a matter of transmitting the vibrations, and of course you would have the same vibration on your line whether it is Manilla rope or wire cable.

Q. Then you wish your answer to be understood that this rope would be connected with a thimble?

A. Yes, sir.

Q. And that the thimble would be of metal?

A. Yes, sir.

Q. Then it is the contact of the thimble with the shackle that you are talking about when you say vibration?

A. Of course it would be transmitted—that is just an agent, is all.

THE COURT: That is all.

(WITNESS EXCUSED.)

ANTONE J. BJERRE: Recalled as a witness on behalf of the claimant, having been previously sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. I will ask you, Captain, how the tow line was attached to the shackle on the barge?

A. The tow line from the Commodore?

Q. Yes.

A. Attached to the shackle?

Q. Yes.

A. Well, we have a steel wire hawser connected to the shackle as a connecting link between the wire hawser and the barge's anchor chain.

Q. But what are the metals at the point of contact between the shackle and the hawser?

A. Well, the actual point of contact would be with the thimble, of course, at the end of the hawser.

Q. The end of the hawser is spliced so as to make a loop?

A. Yes.
Q. And inside of the loop is a thimble?
A. Yes.
Q. What is it made of?
A. Iron.
Q. Is that firmly fixed in the loop of the tow line?
A. It is firmly fixed, and of course the stress would tend to make it firmer on the contact end of the loop.
Q. Now, with reference to getting a compass course and a magnetic course—

MR. GORHAM: I desire to make a statement to the Court at this time. Proctor for libellant has been in error so far as the 2 point deviation is concerned. My error was an honest one, and I was endeavoring to examine the witnesses along the theory that I had conceived to be the true theory. I will admit that Captain Bjerre's statement as to the compass courses with the deviation, deducting instead of adding the two degrees, is correct.

MR. STRATTON: Very well, I will withdraw the witness.

(WITNESS EXCUSED.)

(Whereupon court adjourned until 1:30 P. M.)

AFTERNOON SESSION.

NOVEMBER 15, 1917, 1:30 P. M.

CAPTAIN F. L. HARRIMAN: Called as a witness on behalf of the claimant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. Where do you reside, Captain?
A. Seattle.
Q. What is your business?
A. Seafaring—master mariner.
Q. How long have you been a master mariner?
A. 25 years.
Q. What experience have you had in the waters of Southeastern Alaska and the waters of Revillagigedo Channel?
A. Since '97.

Q. Have you been towing up through those waters all the time?

A. The last three years steady.

Q. What is the character of the towing you have done up here?

A. Barges.

Q. Are you acquainted with barge Bangor?

A. I have seen it, yes.

Q. And with the tug Commodore?

A. Yes.

Q. I will ask you if you know what the custom and general practice was last March and prior thereto in reference to having a look-out on a tug boat? Was it customary or not to have one?

A. Why, no; we never carried any outside of the look-outs in the pilot house.

MR. GORHAM: We move to strike that as not responsive.

THE COURT: Just answer the question yes or not, whether you know what the custom was.

A. No, it isn't the custom.

Q. I am just asking you if you know what the custom is—yes or no—do you know what the custom is?

A. Why, yes, certainly.

Q. What is the custom with reference to carrying a look-out on a tug boat?

A. Why, I never carry any except myself and whoever is on watch at the wheel.

THE COURT: No, he didn't ask you what you did,—he asked you what the custom was.

A. I don't know whether he would call me a look-out or not when I am in the pilot house.

Q. What is generally done on tug boats in reference to carrying a look-out?

A. The officer on the tug is the look-out.

Q. State if you know where it is customary on a tug boat for the man on the look-out to stand—to stay?

A. In the pilot house.

Q. Now, have you towed with towing machines?

A. Yes, sir, my tug has a towing machine.

Q. What is the purpose of a towing machine?

A. Ease the hawser in a sea-way, making sharp turns, or any time that you need it.

Q. How long have you towed with a towing machine aboard?

A. Always had one ever since I was towing.

Q. Now, state whether or not you know from your experience if there would be any extra or excessive or unusual or sudden or unexpected strain or jar upon the towing shackle when the tug ported her helm hard aport and made a turn at right angles, when the barge did not port her helm.

A. Was the automatic on?

Q. The automatic is on and in working order.

A. Shouldn't be any.

Q. I will ask you if you know what the custom was last March, and had been prior thereto with reference to a tow boat giving to the barge a signal to port the barge's helm when the tug boat ported her helm so as to make a turn of 90 degrees, more or less?

A. I didn't quite catch you.

Q. State if you know what the custom last March was, and prior thereto had been, with reference to the tug, when she ported her helm so as to take a right angle course of 90 degrees giving to the barge any signal to port her helm?

A. I never heard of it.

Q. Do you know what the general practice is among tug captains in that respect?

A. Port your helm and go ahead.

Q. Who ports the helm?

A. The tug, if he wants to go port.

Q. Did you ever give to a barge any signal to port or starboard her helm?

A. No.

Q. Does it make any difference what angle you turn at?

A. No.

Q. Have you been a master on sailing vessels?

A. Yes, sir.

Q. Have you been towed?

A. Lots of times.

Q. Have you ever been given any signals to port or starboard your helm?

A. Never.

Q. Have you any signal card aboard your tug?

A. Yes, sir.

Q. What is the name of your tug?

A. The Arctic.

Q. Did you ever tow for Griffiths?

A. Yes, sir, a year steady.

Q. Are you towing for Griffiths now?

A. No, towing for ourselves.

Q. Have you a Griffiths card aboard your tug?

A. Yes; I use the Griffiths card signals.

Q. Do you use any signal to the barge to port or starboard her helm?

A. No.

Q. Why?

A. Well, you couldn't without conflicting with your rule of the road if you wanted to—I never seen the time it was necessary.

Q. Do you know whether those cards are just for the Griffiths' barges or whether they are used generally?

A. Just for the Griffiths' barges, I guess. I had them when I went there and I have kept them.

Q. Can you on a little sketch show what direction a barge in tow, having a hawser of 180 fathoms in length, would take if the tug put her helm hard aport and kept it aport so as to make a right angle circle or turn and the helmsman on the barge didn't do anything with his helm? I will just mark this T for tug, and this B for barge. Suppose the tug ported her helm hard over so as to make a right angle turn to the right, mark on there what direction the tug would take.

A. She couldn't turn at a sharp angle—she would have to make a swing.

Q. Then the tug would take the course "Tug B-C." What course would the barge take?

A. The barge wouldn't quite follow the tug; she ought to swing gradually like that; she would have to follow the bight of the hawser in the water.

Q. So the course of the barge would be "Barge, D-C"—that line?

A. Yes, sir.

Q. Have you seen that done in your own experience?

A. I have done it lots of times.

MR. STRATTON: I offer that in evidence.

(There being no objection, said sketch was received in evidence and marked Claimant's Exhibit No. 29.)

Q. I will ask you what the character of the strain would be on the shackle and tow line if the tug made only a two or three point turn?

A. Why, I shouldn't think it would be noticed at all.

Q. What is your practice when you make a two or three point turn in reference to starting the towing machine?

A. I never start the towing machine in smooth water for a two or three point turn—that isn't anything—that is done all the time—you are making lots of those turns.

Q. Now, in coming up from the International boundary line on the course through Revillagigedo Channel I will ask you what character of turns must necessarily be made before you reach Mary Island?

A. Why, say from Tree Point—

Q. No, south of Tree Point coming north.

A. From Tree Point to Mary Island?

Q. Making the trip from Seattle up, for instance.

A. There are lots of turns there.

Q. Are there any 90 degree turns?

A. I should judge there was; I should judge coming out of Bella Bella would be a 90-degree turn, out around Camp Point—I never stopped to think of them—I guess if I stopped to think of them there would be three or four.

Q. In making those turns do you put the helm hard over to make the turn?

A. No, not hard over; sometimes you do it pretty quick, though.

Q. In those cases is it your practice to give any signal to the barge?

A. No, sir; that is something I never heard of; the barge sees you.

Q. In thick weather when the barge cannot see the lights on the tug, how does the barge know how to follow the tug?

A. I, in sailing a vessel, always went forward on the forecastle-head and watched the hawser, or had one of my officers there.

Q. Do you know what is the practice among the barges you tow in that respect?

A. I know two or three personally that always watch the hawser, or put a man on the forecastle-head to watch the hawser, to tell which way it is leading.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. How do you know they do?

A. I have talked to them.

Q. You know it by hearsay?

A. Yes.

MR. GORHAM: We move to strike out the testimony of the witness as to what he has heard.

THE WITNESS: I was myself towing it.

Q. You know what you do yourself?
A. Yes.
Q. What is the name of your tug now?
A. The Arctic.
Q. By whom is she owned?
A. Independent Asphalt Paving Company.
Q. Where is her home port?
A. Seattle.
Q. How long is she?
A. 125 feet over all.
Q. How far is her pilot house from her stem?
A. I never measured—in the neighborhood of 35 or 40 feet—between 30 and 40 feet, I should judge—I wouldn't be sure.
Q. And you never carry any look-out man ordinarily?
A. No, sir.
Q. In thick weather?
A. No, sir, not as long as I can see the barge.
Q. And if you cannot see the barge then you put a man out?
A. No, sir.
Q. What do you do then?
A. I don't go out at all unless I am looking for an echo. If I want an echo I go out myself if I have a vessel ahead of me.
Q. Why would you want to get an echo?
A. To judge the distance off shore.
Q. That is the proper precaution to take, isn't it, in thick weather?
A. If it is so I cannot see within half a mile or so.
Q. And you say unless you cannot see the barge you do not put a look-out out?
A. No; if I can see the barge on 1200 feet of hawser I can see well enough.
Q. If you cannot see the barge then what?
A. Heave in my hawser until I can see it.
Q. That is proper seamanship to do that, is it?
A. That is seamanship.
Q. If you were traveling through Revillagigedo Channel on a very dirty black night, with frequent snow squalls and continuous rain and sleet, and a fair wind of 30 miles an hour,

you would consider that weather sufficient to bring your hawser in, wouldn't you—to shorten your hawser?

A. No, you misunderstood me there. If the water is not smooth enough you cannot shorten your hawser. If there is a sea on out there you cannot possibly do it.

Q. Before the storm got to that point you would do it, wouldn't you?

A. If I was in smooth water I would shorten my hawser, if there was no sea, ordinarily.

Q. What do you mean by smooth water, Captain?

A. Inside here, right in Tongass Narrows, for instance, is smooth water.

Q. You can always shorten your hawser at any stage of the water?

A. Any stage of the game, yes.

Q. And would you watch your glass if you had a long hawser out?

A. No.

Q. How would you know—

A. I could tell whether the sea was coming up or not. You can feel the sea.

Q. And before it got up you would shorten your hawser?

A. If I could and the sea was smooth enough I would shorten it; if I didn't think it was smooth enough I wouldn't.

Q. You would do it before the sea got too heavy if the sea kept increasing?

A. I couldn't shorten it if the sea was increasing.

Q. There would be a time you could shorten it, wouldn't there?

A. There might be a time I could shorten it in smooth water.

Q. That would be a precaution to take against running into the barge?

A. No.

Q. Why not?

A. No precaution to take against bad weather.

Q. Why not?

A. Because you want your full length out for bad weather.

Q. I mean bad weather where you cannot see your tow?

A. Oh, for thick weather?

Q. Yes, thick weather.

A. I would shorten it if the water was smooth enough.

Q. How are you going to tell whether you will run into thick weather or not?

A. See it, can't you?

Q. You can see it coming, can't you?

A. Usually, yes.

Q. Then there is a time before it comes on you sufficient to shorten the hawser, isn't there?

A. No.

Q. Why don't you travel with a short hawser all the time?

A. Because I don't want to.

Q. It is proper seamanship, isn't it, Captain, to have a short hawser?

A. If I cannot see my barge I shorten up.

Q. What would you call a sea heavy enough to prevent you shortening your hawser?

A. I cannot explain it to you here. Conditions are different—the weight of your vessel, the way she is loaded, whether she is light or heavy, the way the sea is running—different conditions that you cannot tell unless you are on there yourself.

Q. Take the barge Bangor and the tug Commodore, the barge having a cargo of a thousand tons.

A. Is that weight or measure?

Q. The Bangor has 511 gross tons register.

A. What is your cargo, weight or measure?

Q. It is weight and measure.

A. How much weight and how much measure?

Q. Approximately a thousand tons—I am giving you the conditions.

A. I cannot tell the draft of the vessel unless I know the weight that is in it.

Q. 15-6 fore and aft.

A. What do you want to know?

Q. I want to know under those conditions, and with a 180 fathom hawser and a sea running which would not discommode or imperil an ordinarily strong row-boat, do you think you would have a smooth enough sea to shorten your hawser?

A. I couldn't tell unless I was on her. About that kind of business conditions are altogether different and men's judgment is different on those matters.

Q. Have you a towing machine on your vessel?

A. Yes, sir.

Q. Keep steam on all the time?

A. No, sir.

Q. When do you put steam on?

A. When it gets rough so I think it needs it.

Q. How rough will it have to be for you to think it needs it?

A. I cannot tell you. When I see there is quite a strain on the barge or tug I will put it on.

Q. Any strain at all?

A. Any strain that I think is going to do any damage. Do you want to know in this court room whether you would put it on or not?

Q. That is what we want to know, whether you would put it on or not.

A. Not here, no, sir.

Q. Do you use your towing machine in a head wind and sea?

A. At times, when I need it.

Q. But not always?

A. Not always, no.

Q. And if you had a 30 mile head wind—

A. I came across Dixon's Entrance last night with more than a 30 mile wind, without the towing machine on.

Q. Head wind?

A. No, fair wind.

Q. Without the towing machine on?

A. Yes, sir.

Q. What was the tide?

A. Flooding.

Q. No effective tide in there, is there?

A. In where?

Q. Dixon's Entrance.

A. Lots of tide.

Q. Does it have any effect upon your vessel?

A. Oh, yes.

Q. How was the tide, flooding or ebbing?

A. I was coming across on the flood.

Q. And had a fair wind?

A. Yes.

Q. And no towing machine in automatic?

A. No, sir.

Q. It wasn.t necessary to put it on, was it?

A No, sir.

Q. Under those conditions you would not think the strain sufficient to make it necessary to put your automatic in gear, would you?

A. Didn't last night.

Q. I say under those conditions.

A. No; if I had I would have had it on.

Q. What would you have done last night, without your automatic on, coming across Dixon's Entrance on that flood tide, and a fair wind of 30 miles, if you had had occasion to suddenly port your helm hard over?

A. I would have ported hard over.

Q. What else would you have done?

A. Watched the barge, too.

Q. Nothing else?

A. No; what else is there to do?

Q. Don't ask me—I am asking you. Nothing else at all, you would not have given a signal to the barge?

A. No, sir; how could I?

Q. You have a steam whistle?

A. Yes, sir.

Q. The Griffiths' cards have on them a signal for porting the helm?

A. Yes, sir.

Q. Did the tow have that signal card?

A. Yes, sir.

Q. If you blew a port signal would they know what it meant?

A. I don't know whether they would or not. They would know it was a port helm, I guess, but I would be violating a rule of the road.

Q. What are the rules of the road?

A. The rule of the road distinctly says if two vessels are going head on both shall put their helm to port and blow a steam whistle.

Q. Supposing at the time you were making that turn there wasn't another vessel within 30 miles of you, then would you violate the rule of the road?

A. Yes, sir, you would be violating the rule of the road the same as in any harbor.

Q. Then, every time you blow for an echo you violate the rule of the road?

A. No, you don't; that is a different whistle.

Q. So you say if there is no vessel within 30 miles of you—

A. How do you know whether there is a vessel within 30 miles or not?

Q. Couldn't you see?

A. No; there might be a fellow out without a light for all I know.

Q. It was thick weather, wasn't it?

A. No.

Q. How much of a bight would that right angle turn make in your hawser?

A. That I couldn't tell; I never took notice of it.

Q. If you put your wheel hard over and kept it over how long would it take you to straighten out that bight?

A. You have to be governed a good deal by conditions there, you know.

Q. Well, the conditions that existed last night.

A. Last night?

Q. Yes.

A. Probably I would see the bight and see what length the bight should be, and so forth. I cannot tell sitting here. I know I would put the helm hard over if there was any danger to cause it to be put hard over.

Q. Would you put your towing machine in automatic?

A. No, sir; not last night.

Q. Would you under those conditions, in making a right angle turn—the conditions that existed last night?

A. No, certainly not.

Q. How much hawser did you have out?

A. I had 1200 feet; she was out the full length, within one turn and a half of the drum.

Q. What speed were you making across Dixon's Entrance?

A. She come across faster last night than I ever seen her come. She come 21 miles in 2 hours and 20 minutes. She was making over 8 knots.

Q. And if you had put your wheel hard over and kept it hard over under the conditions existing last night, at that speed, wouldn't you have fetched up hard on your hawser?

A. If I kept it there long enough probably I would.

Q. How long would that take you?

A. That I couldn't tell unless I was out there.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. You said that if the weather were foggy and you couldn't see anything, and you were trying to pick up an echo and were operating a ship that you would go outside as look-out—where would you go?

A. I would go right outside of the pilot house—stand in the center of the pilot house where I can locate it better, but other men have different ideas about that. Some men

could locate it better in the pilot house. I always like to go outside, though.

Q. What do you mean by going outside?

A. Stand right outside where the midmast comes up—right in the middle of the pilot house. I should say, maybe, right in the middle of the deck, if I am listening for anything.

Q. Would that be on a level with the deck of the pilot house?

A. Yes.

Q. How long have you been in port?

A. I come in at 3 o'clock this morning.

Q. And you had not been subpoenaed until you came into Ketchikan this morning?

A. No.

MR. STRATTON: That is all.

(WITNESS EXCUSED.)

CAPTAIN R. D. McRAE: Called as a witness on behalf of claimant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. STRATTON:

Q. Captain, when did you come into Ketchikan this last time?

A. About 20 minutes past 2 or 20 minutes to 3 or 3 o'clock this morning.

Q. Had you ever been talked to about this case before two or three hours ago?

A. I heard about it is all; I never talked about it.

Q. What is your business, Captain?

A. I am master of the barge Palmira at the present time.

Q. How long have you been a master of barges?

A. Since 1911.

Q. What experience have you had since that time as a master of a barge passing up the inland Southeastern Alaskan waters and through Revillagigedo Channel?

A. Oh, I probably made this last six years, I probably made a trip every month up north here; and last winter a couple of months I made three trips a month from Skagway to Anyox.

Q. What barges have you been master of?

A. Master of the Corondolet, the St. James and the Palmira.

Q. Are they all owned by the same company?

A. Yes.

Q. Have you been on other barges up through these waters?

A. No.

Q. Do you know from your experience what the custom was last March, and had been prior to that, with reference to a tug giving any signals for the barge to port its helm when the tug changed its course? Do you know what the custom had been in that respect?

A. The custom has been to follow the tug whichever way she went—follow the tug's lights.

Q. Without any signal from the tug?

MR. GORHAM: I would not lead the witness.

A. Yes, follow the tug's lights.

Q. What would the tug do—

A. In the day time follow the tug's masts.

Q. What would the tug do, if anything, about giving signals?

A. She wouldn't give any, not that I know of.

Q. When it is so thick that the lights of the tug cannot be seen from the barge, how does the barge follow the tug?

A. Well, they generally heave the barge up so close that the barge can see her; but if it too rough, and it comes too close to be safe, I go on the forecastlehead myself and watch the hawser. If not, I put a man I can trust to watch the tug's hawser, and put a man at the wheel to keep the barge headed right.

MR. STRATTON: That is all.

CROSS EXAMINATION

BY MR. GORHAM:

Q. You are on the Palmira now?

A. Yes, sir.

Q. Owned by the Alaska Barge Company?

A. Yes, sir.

Q. How long have you been working for them?

A. I have worked 7 years last August.

Q. Were you on the Corondolet when she was wrecked at Prince Rupert?

A. No, I wasn't on her then.

Q. How many men have you on your barge?

A. I have got five.
Q. Who are they?
A. There is the cook and donkey man and three sailors.
Q. Besides yourself?
A. Besides myself.
Q. Six altogether?
A. Six all told.
Q. Who shortens the hawser or orders it shortened?
A. The captain of the tug.
Q. The tug has supreme command, hasn't it?
A. Oh, yes.
Q. The tow follows the tug in all respects—that is its duty, isn't it?
A. Yes, sir.
Q. Why wouldn't you give a signal if you were porting?
A. Well, I will tell you.
Q. That is, if the tug were porting why wouldn't the tug give a port signal to the barge?
A. Because I wouldn't know whether he was giving a signal to another vessel, or whether he was signalling for an echo—I wouldn't know whether he was doing that or not. If it was thick I couldn't tell whether he was seeing a vessel ahead of me. If he were giving a starboard signal I would know what he meant by that and would have to follow the tug.
Q. And if you could see the tug's lights when he gave the signal—
A. I would follow him.
Q. You would follow him?
A. Yes.
Q. Both because you could hear the signal and because you could see the lights?
A. No; the signal wouldn't effect me a bit; I would follow him.
Q. It is proper to follow the tug?
A. Because if he got into trouble and I altered my course and didn't follow him and I could see him and he got in trouble he would have me sure.
Q. It is your duty to follow him?
A. It is my duty to follow him, yes.
Q. And at night when you can only see his range lights your helmsman has orders to follow the tug?
A. Yes, sir.
Q. Wherever the tug goes?
A. Wherever the tug goes.
Q. You have a Griffiths' signal card on your barge now?

A. Yes, sir.

Q. It has the port signal there, hasn't it?

A. I don't know whether it has or not. Of course the port signal, we have got that all right, in case of passing another ship.

Q. You have a signal on that card for porting your helm?

A. Yes.

Q. I show you Libellant's Exhibit S—that is the Griffiths' card, isn't it?

A. Yes, that is the Griffiths' card—Griffiths' Towing Company, number S.

Q. And where it says at the top, "one red dash—port your helm," that means the tow to port its helm, doesn't it—you wouldn't be giving those orders to the tug, would you?

A. No.

Q. The tug would be giving them to you?

A. The tug would give them to us.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. To whom did this barge, the Palmira belong?

A. To the Alaska Barge Company.

Q. To whom did it belong before it belonged to the Alaska Barge Company?

A. Belonged to Griffiths.

Q. That is how—

A. No, that isn't the way I got the card. I got the card from the captain of the Arctic.

Q. Captain Harriman?

A. I think it is just about the same as the one we have on ours except that there is more on that one. For instance, that there has "man overboard,"—the rest are all about the same signals.

Q. Since you have been on this Palmira has the captain ever given you any signal to port or starboard your helm?

A. No.

Q. And during the time you have been towed by him state whether or not the tug and tow have made a great many turns?

A. Yes. I made a mistake. The only time he said starboard or port to me is when he is fast alongside a dock or vessel or alongside a barge.

Q. When you are lashed together?

A. When we are lashed together, in making the dock.

Q. You spoke about shortening up the hawser in smooth weather and when the weather was thick. Suppose the wind rose to 30 miles an hour or so, and the sea got as rough as that kind of a wind would make it in Revillagigedo Channel, when would the hawser be let out again, if at all?

MR. GORHAM: Head wind or fair wind?

MR. STRATTON: Fair wind.

THE WITNESS: What did you say, again?

Q. You said something about the hawser being shortened,—when would the hawser be shortened?

A. In thick weather if the water was smooth so she wouldn't jump so much; the shorter the hawser the less the jump on the hawser. If you have a long hawser she cannot snap.

Q. Then when the sea got rough again what would be done?

A. Give her more hawser again.

Q. Suppose the wind were blowing 30 miles an hour or thereabouts—a fair wind—through Revillagigedo Channel, with a flood tide, what kind of a sea would that cause?

A. It would cause a good sea but it would cause no strain on the hawser at all because the wind was driving the barge on after him. Last night he had to keep out of our way because we were coming right after him.

Q. In that case how much hawser would you have out?

A. 180 fathoms, I guess.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. But if it was thick, under those conditions, the tug would shorten the hawser, wouldn't she?

A. If it was smooth enough to make it do so. Get her up close enough to see her if it wasn't dangerous.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

FRANK JOHNSON: Recalled for further cross examination, having been previously duly sworn, testified as follows:

CROSS EXAMINATION

BY MR. GORHAM:

Q. On this voyage in question in March, of the tug Commodore with the barge Bangor in tow, what was the condition of the water?

A. Where from?

Q. Crossing Queen Charlotte Sound.

A. I just forget now. I think we had a southwest wind.

Q. What was the condition of the water? I didn't ask you what the wind was.

A. A little rough.

Q. Wasn't it a northwest wind?

A. I just forget. It is in the book there, I guess, what it was.

Q. You don't know, do you?

A. I don't know now.

Q. Didn't you buck the wind coming across that Queen Charlotte Sound, and don't you know you did?

A. No, we didn't buck it.

Q. If Captain Bjerre said you bucked it he isn't telling the truth?

A. It was on the port bow a little bit.

Q. You know it was, don't you?

A. I don't know now.

Q. Why do you say that if you don't know?

A. I know it was either west or west southwest.

Q. It was one of those two?

A. Yes.

Q. Was it north of west?

A. I don't know until I see the book.

Q. What was the velocity of the wind?

A. I don't know.

Q. About what was it?

A. I don't know.

Q. A stiff breeze?

A. I think it got pretty fresh—pretty fresh breeze by the time we got over.

Q. What was it crossing, before you got over?

A. It was freshening up as we came along.

Q. How fresh did it get before you got across?

A. I don't know how fast it was blowing.

Q. Stiff?

A. Fresh breeze, I think it was.

Q. Did you sight Lord Rocks when you came by them?

A. Lord Rocks?

Q. Yes.
A. Where—in Queen Charlotte Sound?
Q. No, you know where Lord Rocks are, don't you?
A. Down at Tree Point?
Q. Yes—you sighted them, didn't you?
A. Yes, but that is a long way from Queen Charlotte Sound.
Q. I said did you sight them?
A. Yes.
Q. As you came by Lord Rocks you sighted them?
A. Yes.
Q. How close a departure did you get?
A. Very close.
Q. How close?
A. About an eighth of a mile.
Q. That is a safe clearance of that island, is it?
A. Sometimes it is.
Q. Was it that night?
A. Yes.
Q. An eighth of a mile?
A. Yes.
Q. Not over that?
A. No.
Q. What was your course from Lord Rocks to Tree Point?
A. West by north, I think; I forget exactly now.
Q. And if you cleared Lord Rocks an eighth of a mile on a west by north course for Tree Point, where would that bring you abreast of Tree Point?
A. Three-quarters or half a mile.
Q. Sure, are you?
A. Yes, bring the boat there.
Q. Bring the tug there?
A. Yes.
Q. And that is the course you traveled on. It says here in your log book of the Commodore for March 25, 1916, on top marked "Libellant's Exhibit 2, William T. Mahoney, Clerk," "10:28 Lord Rocks; west by north."
A. Yes.
Q. And that is the course you pursued?
A. Yes.
Q. Clearing Lord Rocks at an eighth of a mile?
A. Yes.
Q. You are positive about that, are you?
A. Yes.
Q. You wont want to take that back, will you, by and by.

A. No.

Q. Then you know that you cleared Tree Point within half or three-quarters of a mile, don't you?

A. Yes.

Q. And when you stated yesterday in your direct examination, when you were asked to what cause you attributed the tug's position over on Mary Island, you stated you may have been further off from Tree Point than you thought you were?

A. We might; that is what we judged it at that time.

Q. You said you were sure you were a half mile from there?

A. The tide sets in there a bit.

Q. What kind of a light is there on Lord Rocks?

A. Blinker.

Q. What is its power?

A. I don't know its power. It is in that book—I guess the only way to find it out.

Q. "Lord Rocks, 130 candle power, 33 feet above sea."

A. Yes.

Q. Visibility, miles seen?

A. 9.

Q. Was the blinker clear?

A. Well, it just depends on the weather.

Q. Was it that night?

A. It was fairly clear.

Q. You could see it pretty well, couldn't you?

A. See it all right.

Q. How far is it from Lord Rocks to Tree Point?

A. About 6 miles, I guess, or a shade over that.

Q. And you were in the red sector of the Tree Point light, running from Lord Rocks to Tree Point, weren't you?

A. For a while.

Q. How far did you say it was from Tree Point to Lord Rocks?

A. About 6—1/10 miles, I think.

Q. And the red sector of Tree Point, according to the Light List of the Pacific Coast, issued by the Government, is visible 13 miles?

A. The Tree Point Light?

Q. Yes.

A. Yes.

Q. And when you made a clearance of Lord Rocks you were in the red sector of Tree Point light, weren't you?

A. I didn't see it.

Q. I will show you the chart and ask you if you were not in the red sector?

A. I didn't see the red sector; might have been in the line of it.

Q. You would be in the range of that light, the red sector?

A. Yes.

Q. And you could not see the red sector of the Tree Point light 6—1/10 miles away, that red sector having a candle power of 690, but you could see the little blinker on Lord Rocks ⅛ of a mile away, the blinker having a candle power of 130?

A. Yes.

MR. GORHAM: Now, we offer Libellant's Exhibit T, for the purpose of showing the Tree Point light location, height of light above the sea, miles seen and candle power.

THE COURT: Do you offer the entire book or just one page of it?

MR. GORHAM: I think counsel will agree with me that we need not offer the whole book?

MR. STRATTON: Yes.

MR. GORHAM: Page 230. It is the 1917 Light List of the Pacific Coast, issued by the Department of Commerce, Lighthouse Service.

MR. STRATTON: Let it be understood that the lights all along this course are shown in that book?

MR. GORHAM: That is satisfactory.

Q. Do you know what lights there are in the waters of Southeastern Alaska with the candle power of the Tree Point light?

A. I didn't notice. I can look in the book.

Q. From your experience—you have been up here a great many times—do you know of any light in Southeastern Alaska that has anywhere near the candle power of the Tree Point light?

A. No, unless I looked in the book.

MR. GORHAM: We offer the book for the further purpose of showing all the lights in the waters of Southeastern Alaska.

MR. STRATTON: No objection.

MR. GORHAM: We offer page 120, beginning at Lord Rocks, 122, 124—that carries the odd numbers, too—126, 128, 130, 132, 134, on up Lynn Canal, and then through Chatham Straits, 136 and 138, down as far as the ocean coast and Dixon's Entrance.

(Whereupon said pages were received in evidence and marked Libellant's Exhibit T.)

Q. Now, on the page of your log book showing the entries for March 25 and three entries for March 26th, on this voyage, I call your attention to the entry, the third from the bottom of the page, "1 o'clock, changed, slowed down." I wish you would look at that, please, and look at the word "changed" in that entry and see if there has not been an erasure where that word "changed" is written and the word "changed" written over the erasure?

A. Yes, there was a word there.

Q. There is—

A. There had been one.

Q. Who made the entry, "one o'clock, changed, slowed down"?

A. I did.

Q. What entry was made there before the erasure?

A. Mary Island.

Q. And then you changed it from the word "Mary Island" to the word "changed"?

A. Yes.

Q. You are sure about that, are you?

A. Yes. Some nights, running along when it was dirty I would mark along three or four points ahead.

Q. And at 1:45 you were at Mary Island, weren't you, that night?

A. At one?

Q. You were at Mary Island at 1:45?

A. Just outside of it.

Q. You were at the little island, were you, on the east shore of Mary Island?

A. We wasn't to it.

Q. You were within half a mile of it?

A. Was when the barge broke away, yes.

Q. When did you make that entry, the entry at one o'clock "changed"?

A. At one o'clock.

Q. Had you seen Mary Island then?

A. At one o'clock?

Q. Yes.

A. No.

Q. What had you seen?

A. Well, we thought we seen the top of Duke Island—a faint glimpse of it.

Q. That is a pretty high island, isn't it?

A. Pretty high, yes.

Q. Mount Lazaro has an elevation of 1700 feet, hasn't it?

A. I don't the name of the mount.

Q. On the south end of Duke Island. You thought you saw the top of Duke Island?

A. It was hard to say; it was hazy—just got a glimpse of it through the sky—it might have been something else.

Q. Why did you put the words "Mary Island" there at one o'clock?

A. I put it there before 12 o'clock.

Q. You put it there before 12 o'clock?

A. Yes, and maybe before that.

Q. Your deposition was taken in this case last June?

A. Yes, I remember.

Q. What did you testify then as to when that change was made there?

A. I think I testified it was done afterwards sometime. I thought you were referring to the 1:45 that time, until I thought it over.

Q. The words "one o'clock, changed" are in the questions propounded to you at that time, aren't they?

A. Yes; the "one o'clock, changed" was put down there sometime after one in one place, and in another place it was put down at one.

Q. No, there is no place where it was put down at one.

A. I think so, if you will read it.

Q. We will offer it in evidence—it will appear in evidence. At that time you were asked, referring to your log book and to your entry "1 o'clock, changed," "why was the original entry rubbed out and a new one inserted?" and didn't you answer, "We may have started to write 'slowed down' and changed it and put some other name"—isn't that your testimony at that time?

A. If you have got it there I guess it is.

Q. And weren't you asked "That is your full answer?" and didn't you answer "That is the only thing I can see. I might have wrote some other name and got it wrong and rubbed it out and put in a change."?

A. I know now how it was done.

Q. You have a better memory now, in the month of No-

vember, than you had in the month of June, regarding a transaction which occurred in the month of March, is that right?

A. Yes.

MR. GORHAM: That is all.

RE-DIRECT EXAMINATION

BY MR. STRATTON:

Q. I will ask you whether or not in making up your log book you put down the names of the points you expect to reach in advance of actually reaching them?

A. Yes, sir; do that often.

Q. Had you done it this night?

A. Yes, sir.

Q. And had you put down the words "Mary Island"?

A. Yes; I started in at Lord Rocks, and I put down Tree Point and Mary Island afterwards.

Q. And when you didn't reach Mary Island light that night—

A. About 1 o'clock we changed the course so I had to rub out "Mary Island" and put in the change there. That is how that come about.

Q. And what is the reason that you frequently put down in advance the points that are on your courses that you are going to reach?

A. At night times it saves keeping the electric light on in the pilot house too long.

Q. What effect does it have?

A. It kind of saves your eye sight. The longer you keep the light on the worse your eye sight gets.

Q. Now, with reference to keeping a man at the towing machine, standing by the towing machine, was there a man standing by the towing machine coming across Queen Charlotte on this trip?

A. Yes.

Q. Did you come across there in the day or night?

A. I think it was in the morning.

Q. What is your custom in reference to keeping a man at the towing machine? When did you keep him there, if at all?

A. Generally all the time in bad weather there is somebody there.

Q. How was the wind when you crossed Queen Charlotte?

A. It got pretty fresh before we got over.

Q. What direction?

A. I just forget now—southwest, I think.

Q. Look at your log book. What does your log book show the direction of the wind was at that time, crossing Queen Charlotte?

A. It was snowing when we came out past Scarlett Point, and Pine Island was westerly wind; Egg Island, strong southwest.

Q. Where is Egg Island?

A. Pretty well across the Sound.

Q. How was it at 5:32 A. M. on the 24th, after you had passed Egg Island?

A. 5:32 P. M.

Q. It is P. M., is it?

A. Yes; southwest wind—light southwest wind—then we were way inside.

Q. Then at 9:12 on the night of the 24th, what was the condition of the weather?

A. Snow squalls then.

Q. And at 9:55 of the same night how was the wind?

A. Northerly wind, and continued northerly.

Q. How did the wind continue then?

A. Continued northerly.

Q. Until you came to Red Cliff at 6:03?

A. Yes; there isn't very much wind in them channels down there.

Q. And at 7:15 P. M., when you were at Hodgson Reef, on March 25th, what was the condition of the weather?

A. Snow squalls and easterly wind.

Q. And at 11:19, when you reached Tree Point, what does the weather show?

A. Fresh southeast wind with snow.

Q. And at one o'clock A. M. on the 26th of March, what does your log book show with reference to the weather?

A. Strong southeast wind, and snow.

MR. STRATTON: That is all.

RE-CROSS EXAMINATION

BY MR. GORHAM:

Q. Did you testify in reference to the character of cable you used—steel hawser, was it?

A. Yes, steel hawser.

Q. That was your tow line, a steel hawser?

A. I don't know anything about wires. It was a steel hawser, is all I know.

Q. Do you know anything about the number of strands, and wires to a strand?

A. I never counted them—6-19 I think.

MR. GORHAM: I want to show the breaking load of 1¼ crucible steel wire is 47 tons, by this publication of the Mill, Mining and Supply Company of Seattle, copyrighted 1916.

MR. STRATTON: We object to that as pure hearsay. We have no opportunity to cross examine the man who put that in there. It contradicts the testimony of our own witnesses, who said it was 53 or 54, I don't remember which—it is not proper cross examination.

THE COURT: I think it would be proper cross examination of Captain Bjerre, but I don't remember that this witness testified anything about it.

MR. GORHAM: I will recall Captain Bjerre then. That is all with this witness.

(WITNESS EXCUSED.)

ANTONE J. BJERRE: Recalled for further cross examination, having been previously duly sworn, testified as follows:

CROSS EXAMINATION

BY MR. GORHAM:

Q. What was the character of the wire you had?

A. 1¼ inch steel wire hawser.

Q. What was it, crucible steel?

A. I don't know the nature of the steel.

Q. Didn't you state the other day in answer to my question, when you were sitting in the seat alongside of your counsel, that it was crucible steel?

A. No, sir, I didn't—not that I know of, I didn't, because I don't know what kind of steel was in the hawser.

MR. GORHAM: We still offer this book, if the Court please, for what it is worth. It is for the trade, showing crucible cast steel wire rope, 6 strands, 19 wires to the strand, Manilla core, diameter in inches 1-⅛, approximate breaking stress in tons of 2000 pounds, 47.

MR. STRATTON: We object to it as pure hearsay, not proper cross examination, incompetent, irrelevant and immaterial.

THE COURT: Well, I think it is cross examination but

I don't think there is any foundation laid for it yet. Whose book is it—what is it?

MR. GORHAM: I have stated it is for the trade, and it is published by the Mill, Mining & Supply Company of Seattle, just like the Roeblings' list they had here the other day.

THE COURT: Yes, but there was something went ahead of it—who the Roeblings were, what their standing was. You simply produce a book here—

MR. GORHAM: That is the best we can do with it. We have to offer it for what it is worth.

THE COURT: I think if I remember rightly in the matter of the Roeblings' catalogue that it was admitted by both sides.

MR. GORHAM: Oh, no; we asked for it and they never brought it back.

MR. STRATTON: We didn't have it—we returned it.

MR. GORHAM: There wasn't any 6-19 in the Roeblings' list—that is why neither one of us used it.

THE COURT: I will sustain the objection at this time.

MR. GORHAM: I will ask counsel if he will admit that is a photograph of the tug Commodore as she appeared in March 1917?

THE WITNESS: Yes; it is a picture of the Commodore.

Q. As she appeared in 1917?

A. Very similar; she may be a little low in the water. She is the same yet—there is no change in the boat.

Q. And the picture now is the same as she was then?

A. Yes, sir.

MR. GORHAM: We offer this, now, if the Court please, in connection with the cross examination of this witness.

(There being no objection, said picture was received in evidence and marked Libellant's Exhibit U.)

(WITNESS EXCUSED.)

MR. GORHAM: We withdraw at this time the objections we made to the introduction of the depositions.

THE COURT: That is, the general objection to the depositions?

MR. GORHAM: Yes, that they were not published.

MR. STRATTON: It is agreed between counsel that the objections on the depositions shall not be passed upon until the writing of the opinion by the Judge.

CLAIMANT RESTS.

REBUTTAL

CAPTAIN W. C. DIBRELL: Introduced as a witness on behalf of the libellant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified in rebuttal as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. Your name, please?
A. W. C. Dibrell.
Q. What is your occupation, Captain?
A. Lighthouse Inspector for the Alaska District.
Q. How long have you occupied that position?
A. Between 5 and 6 years.
Q. In the Alaska District?
A. No; I have been up here a little over four years.
Q. What are your duties?
A. My duties are to supervise all lighthouse work within the District, including all the operations of the lighthouse vessels.
Q. You visit the lighthouses?
A. Yes, sir.
Q. In the line of your duties?
A. Yes, sir.
Q. Do you know the lighthouse at Tree Point in Revillagigedo Channel, in Southeastern Alaskan waters?
A. Yes, sir.
Q. What is the candle power of that light, do you know?
A. Why, it is about 2300, I think.
Q. How many lights of that power are there in the waters of Southeastern Alaska?
A. In Southeastern Alaska there is only one other light of about the same candle power—I don't recall now which is the more powerful.
Q. That is Eldred Rock?
A. Yes.
Q. And all of the other lights are comparatively low power?

A. They are lower power than Tree Point, yes, sir.

Q. Are you a master mariner?

A. Why, I have no license as such, no, sir.

Q. Do you navigate vessels?

A. I have in years past—not at the present time.

Q. What character of vessels?

A. Coast survey vessels.

Q. In your capacity in the employ of the Government are you in charge of a coast survey vessel?

A. Yes, sir.

Q. As its commanding officer?

A. Yes.

Q. You are familiar with its compass?

A. Yes, sir.

Q. And are familiar with chart, compass and magnetic courses on Government charts?

A. Yes, sir.

Q. I will show you Libellant's Exhibit V for identification, which is No. 8075, chart of Revillagigedo Channel, and ask you if you platted on the chart the courses marked in red lines from Tree Point up the Revillagigedo Channel?

A. Yes, sir.

Q. When did you do that?

A. I did that last evening.

Q. At my request.

A. Yes, sir.

Q. How far is the point of departure on each of those courses from Tree Point?

A. Three-quarters of a nautical mile.

Q. The westward course is what?

A. The westerly course—the first one of the two courses, is northwest 3/8 west magnetic, changing at the end of 12½ miles from Tree Point to northwest ⅛ west magnetic.

Q. And the easterly course is what?

A. Northwest ½ west—that is by ship's compass, which compass has a deviation of 2 degrees east—to 12½ miles from Tree Point; the next course is northwest by ship's compass, the same compass, having a deviation of 2 degrees east.

Q. And the magnetic course and the ship's compass course take the same departure by Tree Point?

A. Yes, sir; both start at the same point.

Q. And at the end of the two courses,—how many miles is that?

A. 17½ miles.

Q. And at the end of the 17½ miles how far are those courses apart?

A. About .45 mile.

Q. Is that platted to the absolute scale of the chart?

A. Yes, sir, it is—that is according to the scale of the chart.

Q. And that is absolutely correct, is it?

A. Yes, sir.

Q. Then a compass course of a ship's compass, with a deviation of 2 degrees easterly, northwest ½ west, is not the same as a magnetic course of northwest 3/8 west—they are not identical courses?

A. No, sir, they differ.

Q. As shown on this chart?

A. Yes, sir.

Q. And the ship's compass course with its deviation of 2 degrees east of north is not the same as the magnetic course of northwest ⅛ west?

A. No, sir.

Q. Now, you have some pencil memoranda on the lower right hand side of the chart, reading, "Magnetic, N W 3/8 W equals 310° 47′, which equals N 49¼° W", and you have "N W ⅛ W equals 313° 36′ equals N 46½° W;" and you have "Ships compass, 2° E"—deviation, is it?

A. Yes, sir, that is deviation.

Q. "N W ½ W equals 309° 23′+2° equals 311½° equals N 48½° W;" and "N W equals 315°+2° equals 317° equals N 43° W." Those computations are mathematically correct, are they, Captain?

A. Yes.

Q. And were made at my request?

A. Yes, sir.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. How many degrees in a point, Captain?

A. 11¼ degrees in a point.

Q. And 2 degrees is what part of a point?

A. It is between an eighth and a quarter.

Q. Do you know what, in practical navigation, 2 degrees is figured as—what part of a point it is figured as by the men who ply up in the waters of Southeastern Alaska—masters? Isn't it considered ⅛ of a point?

A. Well, I couldn't say what the practice would be—it would fall between an eighth and a quarter and it might be called either one or the other by different mariners.

Q. And when they plat their courses on the chart they do not plat courses intermediate between an eighth and a quarter, do they?

A. No; an eighth,—where they use points in place of degrees an eighth is usually as close as they work.

MR. STRATTON: That is all.

THE COURT: I understood you to say there were 11¼ degrees in a point?

THE WITNESS: Yes, sir.

THE COURT: And still you say you would call 2 degrees an eighth of a point?

MR. GORHAM: Yes, a point is 11¼ degrees, and an eighth of that 11¼ degrees is a point. We offer this chart for the purpose of showing that at the end of 17½ miles there was a difference in that angle of .45 mile, and further for the purpose of showing that the testimony of Captain Bjerre and the testimony of Captain Johnson that those two courses were identical courses is not correct.

MR. STRATTON: I would like to ask Captain Dibrell some further questions on cross examination.

THE COURT: Very well.

Q. (By Mr. Stratton): You have stated already that a point is 11.15 degrees?

A. 11¼.

Q. How many degrees in half a point, Captain?

A. Half a point would be 5 degrees 38 minutes.

Q. 37.30, isn't it?

A. Yes.

Q. What is a quarter of a point—how many degrees?

A. A quarter would be 2-48-45.

Q. And an eighth of a point would be 1 degree, 24 minutes, 22 seconds, wouldn't it?

A. Yes, 1 degree, 24 minutes—I wouldn't be sure of the minutes.

THE COURT: You don't count anything between a quarter and an eighth?

A. No, sir.

Q. (By Mr. Stratton): You don't count a sixth of a point?

A. No, not a sixth or a sixteenth excepting in some mathematical problem in which a sixteenth would be one-half of an eighth.

THE COURT: But never a sixth of a point?

A. No.

THE COURT: It is either a quarter, an eighth or a half?

A. Yes.

MR. STRATTON: That is all.

MR. GORHAM: We offer the chart in evidence.

(There being no objection to the introduction of the chart, the same was received in evidence and marked Libellant's Exhibit V.)

(WITNESS EXCUSED.)

MR. GORHAM: We offer the Pacific Coast Pilot, Alaska, Part 1, issued by the United States Coast and Geodetic Survey, T. C. Mendenhall, Superintendent, third edition, Dixon's Entrance to Yakutat Bay, with inland passage from Strait of Fuca to Dixon's Entrance, published by the Department, at page 101.

MR. STRATTON: What year was that published in, please?

MR. GORHAM: 1891.

MR. STRATTON: We object to that as being incompetent, irrelevant and immaterial.

THE COURT: The objection is overruled.

MR. STRATTON: Exception:

MR. GORHAM: You have no question as to the authenticity of this?

MR. STRATTON: Oh, no.

MR. GORHAM: The offer is made to that portion as follows: "Tides in Revillagigedo Channel." (Whereupon said portion was read into the record as follows:) "From Cape Fox the tide sets to the northwestward, following generally the direction of the channel, with a variable force, influenced by the wind, of from 1 to 3 knots; at the Twin Islands it receives the northern flow from Felice Strait, and a slight set across the channel is sometimes experienced, due to the movement of the flood into Behm Canal. The northerly set of the flood through Nichols Passage is about 1 knot per hour, and is diverted to the westward through Tongass Narrows; in the narrows the tidal current is sometimes as great as 4

knots an hour, but usually from 1 to 2 knots; the flood tide from Clarence Strait sometimes backs up into the narrows as far as Channel Island."

MR. GORHAM: Then under the paragraph headed "Sailing Directions," I will read, on the same page: "Revillagigedo Channel and Tongass Narrows. In Chatham Sound the usual course, if bound to the northward, is to the westward of Green Islands. On this course, with Whitley Point bearing W SW 1 mile distant, a course N W by W ¾ W leads into Revillagigedo Channel, passing 1 mile off Boat Harbor Point. About 13½ miles on this course, or until the island of Cape Fox closes in on the mainland, carries clear, whence a N W 3/8 W course for 21½ miles will bring the Twin Islands, ½ mile on the port beam, S W 3/8 S. The tides, flowing from 1 to 3 knots from and to Dixon Entrance, may somewhat affect these courses and distances, particularly with strong winds, and care should accordingly be taken."

Then I will read the entry on page 82 of the same book: "Lord Islands, lying about 2½ miles S E by E from Cape Fox, are in two groups, separated about ¾ mile, and having a number of islands in each group, the larger islands being wooded. These are sunken rocks and kelp close around these islands, with a clear channel between the groups. The channel E of these islands is deep and clear of obstructions, except Craig Rock previously described. There are several bare rocks about the Lord Islands.

Lord Rock, bare, about 10 feet above high water, is about 60 yards square. It lies S E by E 2½ miles from Cape Fox, and ½ mile S W by S from the south group of the Lord Islands."

MR. STRATTON: Is Cape Fox and Tree Point the same?

MR. GORHAM: Cape Fox is to the south and east of Tree Point. We further offer in evidence, if the Court please, the depositions with the exhibits, including the log book of the Commodore, of the witnesses E. R. Smith, Sam Dawe and Frank Johnson taken before the United States Commissioner at Ketchikan, in the District of Alaska, on the 11th day of June, 1917, pursuant to notice and stipulation of the parties, together with all the stipulations attached thereto, thereafter published in this court by order of this court, the depositions being taken on behalf of the libellant in this cause.

MR. STRATTON: We object to that.

THE COURT: For what purpose?

MR. GORHAM: We have asked the witnesses of the claimant impeaching questions and every time we have done so the witness has answered if it is in there that they so testified. There is no evidence that it is in there unless the depositions are in evidence as an exhibit.

THE COURT: Those parts of the depositions that you want to contradict the witnesses are of course admissible. Just mark them and offer those parts.

MR. GORHAM: Very well; we will call our other witnesses and will mark the depositions and offer them later on.

THE COURT: Very well.

W. D. MARSTON: Introduced as a witness on behalf of the libellant, being first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. State your name.
A. W. D. Marston.
Q. Your age?
A. 34.
Q. Your residence?
A. Anchorage, Alaska.
Q. Your occupation?
A. Lumbering.
Q. How long have you been engaged in the lumbering business?
A. Since the spring of 1906.

MR. GORHAM: This is the witness, if the Court please, that we stated did not arrive at the time we put in our case in chief and we asked leave to put this witness on when he did arrive. He has since arrived, and we are now offering his testimony as part of our case in chief.

MR. STRATTON: We do not have any objection to that—that was the understanding.

MR. GORHAM: I expect to prove by this witness that he is a thoroughly qualified lumberman of long experience on Puget Sound; that he understands thoroughly the grading of lumber; that he has been in charge for 13 months of the lumber yards of the libellant at Anchorage as salesman and man-

ager; that he checks from the invoices the cargoes of lumber arriving at Anchorage for that establishment, and that he so checked the damaged lumber on the Bangor arriving at Anchorage after this accident—the lumber damaged by reason of the grounding of the barge Bangor in March, 1917, when she was in tow of the Commodore, and that the damage to that lumber,—particularly to the 187,000 feet of clean, dry finish lumber, figured at the laid down price of that lumber at Anchorage, was $15.00 per thousand.

MR. STRATTON: Is that the same that Mr. Mylroie made it?

MR. GORHAM: No, Mr. Mylroie put it in at $12.50 per thousand. That is what this witness will testify to. We are not at this time claiming the $15.00—we are not claiming anything in excess of $12.50. He would further testify as to the common lumber that was damaged upon its arrival at Anchorage on the barge Bangor an average of $10.00 a thousand. Mr. Mylroie's statement was $7.50, and in our schedule and bill of particulars we have only asked for $7.50, and that is not taking into consideration the fact, as this witness would testify to, that this lumber in this cargo was lumber contracted for by Mr. Mylroie in December, 1916, and that the lumber market had advanced approximately 50 per cent between December 1916 and April 1, 1917. We are basing it simply upon the laid down cost of lumber there, handling in the yard, and lighterage at Anchorage.

MR. STRATTON: As I understand, you would not stand by reason of his testimony, any greater damages than you have already claimed in Mr. Mylroie's testimony?

MR. GORHAM: No.

MR. STRATTON: I think we can safely admit the witness would so testify.

MR. GORHAM: And is so qualified?

MR. STRATTON: Yes.

(WITNESS EXCUSED.)

CHARLES CROFT: A witness on behalf of the libellant, having been previously duly sworn, testified in rebuttal as follows:

DIRECT EXAMINATION

BY MR. GORHAM

Q. Were you present in the court room and did you hear Captain Bjerre testify in this cause that after the shackle—

MR. STRATTON: If the Court please, I think that is improper to ask a witness if he was present in court and heard a witness testify so and so. If libellant wishes to introduce the evidence of this gentleman to contradict the evidence of any of our witnesses there is a proper way to ask the questions, but he cannot tell this witness what our witnesses answered and then ask him questions about it. It is not proper examination, and we object to it for that reason.

THE COURT: I think that the proper way is to ask him the point blank question, no matter who testified to it.

Q. Mr. Croft, after the shackle of the barge Bangor parted, on the 26th day of March, 1917, and the tug had made part of a circle and come back toward the barge did Captain Bjerre—

MR. STRATTON: I object to that as being leading.

THE COURT: Yes, but I think you may lead a person in redirect examination—call his particular attention to the question you want him to answer. I do not think the rule is so strict in redirect examination as it is on direct—finish your question.

Q. After the shackle of the barge Bangor parted, on the 26th day of March, 1917, and the tug had made part of a circle and come back toward the barge did Captain Bjerre take the wheel away from you and put it hard over?

A. No, sir.

MR. GORHAM: That is all.

MR. STRATTON: No questions.

(WITNESS EXCUSED.)

JAMES L. AVIS, JR: A witness on behalf of the libellant, having been previously duly sworn, testified in rebuttal as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. When a bar of wrought iron is subjected to heat treatment for the purpose of welding, how much of the bar is brought to the highest degree of heat?

MR. STRATTON: If the Court please, that would depend on the length of the bar, how long the weld was, and a great many things that he cannot tell.

Q. Well, a bar from which a shackle such as the shackle in evidence was made?

MR. STRATTON: We think the witness is entirely incompetent to testify to that—how does he know?

Q. Did you ever do any heat treating for welding?

A. Yes, sir.

Q. Have you done that heat treatment with wrought iron?

A. Yes, sir.

Q. In that proper heat treatment of wrought iron is crystallization produced?

A. No, sir.

Q. Is there any loss of ductility in the metal?

A. No, sir.

Q. And in the welding process by hammering, does the hammering restore ductility?

A. No, sir.

Q. Now, in an inch and a half bar of wrought iron where you desire to scarf it how much ordinarily in instrumentalities for commercial purposes like a shackle would be laid over?

A. Well, for the actual length of the weld approximately three times its diameter.

Q. Then if this inch and a half shackle, at the time it was a bar, was subjected to heat treatment for the purpose of welding an eye in the bar, would the part laid over come below the fracture you found in the shank?

MR. STRATTON: I don't know whether the witness knows whether it would or not.

THE COURT: If he doesn't know he can say so.

MR. STRATTON: He never forged a ship's shackle. The question is if that were being welded for a shackle would the man who welded it lay it over so it would extend above or below the place where it parted. How does this witness know a thing of that kind, your Honor?

THE COURT: I think the use of the word "would" is objectionable. Would it do so and so.

MR. STRATTON: The witness doesn't know—he never made a shackle.

THE COURT: No, but he has shown familiarity with all things of that kind.

MR. STRATTON: He has never shown any familiarity with shackles.

Q. (By Mr. Gorham): Have you followed welding processes and welded iron for commercial use?

A. Yes, sir.

Q. In railroad companies' works?

A. Yes, sir.

Q. Can you tell from this piece of iron, D-2, how long the scarf was—how far it laid over?

A. No, it is not in evidence.

Q. The slag is no evidence of the scarf?

A. The slag is evidence of having been welded but it has been made so homogenous—the work on that was exceptionally good and it is so homogenous that there is no detecting the line of demarcation of a loop.

Q. Now if this shackle in evidence were at all crystalline would that condition be uniform throughout the entire heating operation?

MR. STRATTON: I think that question is very leading.

Q. I am asking if in the treatment of this for welding if it were crystalline would the condition appear through the metal—the entire heating operation of the metal?

A. Yes ,sir.

MR. STRATTON: We object to that as being leading. The witness has not shown himself qualified.

THE COURT: Overruled.

Q. And crystallization in that case would arise from what?

A. If it showed a crystalline fracture?

Q. No, if it showed crystallization uniformly throughout the structure?

A. It would show it came from faulty heat treatment.

Q. Does the slag spot in this exhibit indicate anything in reference to the weld?

A. It indicates the presence of a weld.

Q. What part of the weld would it be?

A. It is the center.

Q. If the weld had been an improper weld would the break be at right angles to the area of the bar or would it break up along the scarf, if there had not been a homogenous weld?

A. It would have been along the scarf.

Q. What effect does hammering have upon wrought iron as to the ductility of the part of the bar adjacent to the hammered part?

A. Why, it has a tendency to make the metal more homogenous under heat.

Q. If this shackle had been used on the barge Bangor as part of the towing device, connecting the anchor chain of the barge with the tow line of the tug, on three round trips from Seattle to Anchorage, covering approximately 10,000 miles, state whether or not the vibration of the cable hawser caused by force of the tug would have any crystallizing effect upon the shackle?

MR. STRATTON: I don't think the witness has shown himself qualified to answer that question. He doesn't know what vibration there was. Our witness who testified said it would—he knew the character of vibration—had experience and knew what the vibration was. This witness doesn't know.

THE COURT: The objection is overruled.

MR. STRATTON: Exception.

A. No, sir.

Q. Why not?

A. Because of thousands of tests we have made in the laboratories covering material of this class, where we have taken long bars and chopped them up into many pieces.

Q. Are you referring now to your own individual work?

A. Yes, sir.

Q. On wrought iron?

A. Yes, sir; where they have been chopped up into many pieces and alternate pieces taken and given vibratory tests and tensile tests.

Q. Explain what the vibratory test was.

A. They have been put into a power machine that would give them hundreds of thousands of vibrations over a long period of time.

Q. Explain that.

A. The bars would be gripped rigidly and the machine would be shifted off the center so that it would not revolve uniformly but would revolve eccentrically, and the bars would be given these vibrations.

Q. And that was your vibratory test?

A. Yes, sir.

Q. Was that a test of long duration or otherwise on each piece?

A. Oh, yes.

Q. How many vibrations would it run into—hundreds or thousands or millions?

A. Oh, it would run into millions.

Q. And then would these specimens, after this vibratory test, be tested for tensile strength?

A. Yes, sir.

Q. And what was found to be their condition as regards being crystalline or otherwise?

A. They showed no indication of crystallization; they were all fibrous and showed good elongation.

Q. And had those specimens been subjected to the burning temperature?

A. No, sir.

Q. Did you have any specimens of wrought iron which had been subjected to burning temperature and then afterwards to vibratory tests?

A. Yes, sir.

Q. And what was the result of the vibratory test?

A. They would break almost immediately.

Q. Why?

A. Due to the fact that the heat treatment had crystallized them.

Q. The burning?

A. Yes.

Q. And were these specimens that were so burned and subjected to the vibratory test, any of them subjected to a tensile test?

A. I didn't get that question.

Q. Were those specimens that were subjected to the burning temperature and then subjected to the vibratory test, any of them thereafter subjected to a tensile test?

A. Yes, sir.

Q. And what was the result?

A. They were crystalline in character—non-ductile.

MR. GORHAM: That is all.

CROSS EXAMINATION

BY MR. STRATTON:

Q. You say that you have submitted many thousands of pieces of wrought iron to vibratory tests, is that so?

A. Yes, sir.

Q. Really many thousands—how many do you consider many thousands?

A. Oh, we would have sometimes perhaps a series of two or three hundred tests on the way at a time.

Q. Of what?

A. Of wrought iron.

Q. For whom?

A. Some of it was done for the Baltimore and Ohio Railway Company—most of it was—the bulk of it.

Q. Were those vibrations made when there was a tensile tension on the tested article?

A. Many of them.

Q. With reference to the slag, there might be a piece of slag anywhere in that bar of iron, might there not?

A. There is a bare possibility that there might.

Q. But you cannot tell whether there are other slag spots in that shackle than the one we see exposed there in that exhibit, can you?

A. That is true.

Q. And if you cut that bar of iron off any place you might find a slag spot similar to the one that is visible in the end of that exhibit D-3?

A. No, not necessarily.

Q. Not necessarily—I am not speaking about necessarily—I am asking you if it might not be there?

A. There might be presence of slag there, yes, sir.

Q. And if you were to cut that bar of iron off any place you might find a slag spot similar to the one which we see in the end of exhibit D-2?

A. I hardly think you would.

Q. Why?

A. Because it is more of the nature of a slag that comes from the flux used in forging.

Q. But you cannot say that if you cut the bar of iron off at any place you would not find a slag spot like that?

A. I say I don't think it is probable.

Q. Do you say that wrought iron will not crystallize by repeated vibrations?

A. It will not—not if it is of the proper composition.

Q. It would not if it was of the proper composition—how do you know that this particular shackle would not crystallize by repeated shocks?

A. Because it gave no evidence of being poor composition.

Q. That is to say that portion of it that you tested?

A. Yes, sir.

Q. And the test was made of a two inch piece, wasn't it?

A. What do you mean by a 2 inch piece—you mean diameter?

Q. You took a piece in length—

A. The length was 2 inches, Mr. Stratton.

Q. If authorities who have written on this subject say

that when wrought iron is subjected to repeated shocks crystallization will occur, you disagree with them, do you?

A. Yes, sir.

Q. Are you acquainted or familiar with Kent, who wrote the work "Mechanical Engineers' Pocket Book."?

A. I simply know the work.

Q. You cannot say that you have read it—have you read any part of it?

A. Oh, yes.

Q. Now, if it is stated in this book as follows: "More than twelve years were spent by Wohler at the instance of the Prussian Government in experimenting upon the resistance of iron and steel to repeated stresses. The results of his experiments are expressed in what is known as Wohler's law, which is given in the following words in Dubois's translation of Weyrauch: 'Rupture may be caused not only by a steady load which exceeds the carrying strength, but also by repeated applications of stresses, none of which are equal to the carrying strength. The differences of these stresses are measures of the disturbance of continuity, in so far as by their increase the minimum stress which is still necessary for rupture diminishes.'

A practical illustration of the meaning of the first portion of this law may be given thus: If 50,000 pounds once applied will just break a bar of iron or steel, a stress very much less than 50,000 pounds will break it if repeated sufficiently often.

This is fully confirmed by the experiments of Fairbairn and Spangenberg, as well as those of Wohler; and, as is remarked by Weyrauch, it may be considered as a long-known result of common experience. It partially accounts for what Mr. Holley has called the 'intrinsically ridiculous factor of safety of six.'

Another 'long-known result of experience' is the fact that rupture may be caused by a succession of shocks or impacts, none of which alone would be sufficient to cause it. Iron axles, the piston-rods of steam hammers, and other pieces of metal subject to continuously repeated shocks, invariably break after a certain length of service. They have a 'life' which is limited.

Several years ago Fairbairn wrote: 'We know that in some cases wrought iron subjected to continuous vibration assumes a crystalline structure, and that the cohesive powers are much deteriorated, but we are ignorant of the causes of this change.' We are still ignorant, not only of the causes of this change, but of the conditions under which it takes place. Who knows whether wrought iron subjected to a

very slight continuous vibration will endure forever? or whether to insure final rupture each of the continuous small shocks must amount at least to a certain percentage of single heavy shock (both measured in foot-pounds), which would cause rupture with one application? Wohler found in testing iron by repeated stresses (not impacts) that in one case 400,000 applications of a stress of 500 centners to the square inch caused rupture, while a similar bar remained sound after 48,000,000 applications of a stress of 300 centners to the square inch (1 centner=11.2 lbs.)

Who knows whether or not a similar law holds true in regard to repeated shocks? Suppose that a bar of iron would break under a single impact of 1000 foot-pounds, how many times would it be likely to bear the repetition of 100 foot-pounds, or would it be safe to allow it to remain for fifty years subjected to a continual succession of blows of even 10 foot-pounds each?" Now, you do not agree with those statements?

MR. GORHAM: Counsel has been reading what appears to be an argument, not a statement of facts.

MR. STRATTON: It is a scientific statement.

MR. GORHAM: He says "who knows"—he does not answer the question.

THE COURT: He is now asking the witness whether he agrees with him. If it only an argument it doesn't make any difference whether he agrees with it or not.

Q. (By Mr. Stratton): Do you agree with the statements that I have just read from Kent, which is found on page ..... in his work entitled "Mechanical Engineer's Pocket Book," edition of 1912?

A. I cannot agree with them.

Q. Now, are you acquainted with or have you read Mills' work "Materials of Construction", edition of 1915?

A. No, I am not familiar with it.

Q. Now, if in that book he says: "The effect of the rapid growth of the crystals at a welding heat is to produce a coarse-grained iron which lacks ductility and possesses great brittleness. The remedy lies in the refining of the metal by working it under the hammer or in a press until the critical range of temperature has been passed. The danger due to coarse crystallization usually is not that the metal will be brittle just at the weld, for this portion will probably have been thoroughly refined by the working necessary to

properly close the joint, but rather that the metal some few inches from the joint will have been overheated without subsequent heat refinement under the hammer. Such a joint may upon testing fail at a point somewhat removed from the weld itself, but this does not prove that the weld is stronger than the original bar." Do you agree with him?

A. The metal a few inches from the weld would not be over-heated—it would be cooler than the weld.

Q. Do you agree with this statement?

A. No, sir.

MR. STRATTON: That is all.

REDIRECT EXAMINATION

BY MR. GORHAM:

Q. I meant to ask you, are you a member of the American Society of Engineers for testing materials?

A. Yes; called the American Society for testing materials.

MR. GORHAM: That is all.

RECROSS EXAMINATION

BY MR. STRATTON:

Q. Did you ever hear of Adelbert P. Mills?

A. I think I have—I couldn't say positively.

Q. Is he the Assistant Professor of Materials, College of Civil Engineers, Cornell University, Associate Member of The American Society of Civil Engineers, Member of American Society for Testing Materials,—that is your society?

A. Yes, sir.

Q. He is a member of that?

A. I couldn't say positively. I couldn't remember the membership.

Q. The book says he is.

A. He must be.

Q. And you do not agree with his statements?

A. No; there is a variance of opinion.

MR. STRATTON: That is all.

REDIRECT EXAMINATION

BY MR. GORHAM:

Q. You base your opinion on the practical experience you have had since you have been out of school?

A. Yes, sir.

Q. In the locomotive works?

A. Yes, sir.

Q. Of the Baltimore and Ohio Railroad?

A. Yes, sir; and in a great many other plants.

Q. Does your society publish any hand books or journals?

A. They get out their annual proceedings and their books of standards, with pamphlets coming out from time to time.

Q. With the results of the work of the people in that profession?

A. With the progress of the profession and the reports.

MR. GORHAM: That is all.

(WITNESS EXCUSED.)

A. W. MYLROIE: The libellant herein, upon being recalled in rebuttal, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. GORHAM:

Q. Mr. Mylroie, this barge Bangor made two trips after the trip on which it ran aground at Mary Island in March 1917?

A. It has made two since, yes, sir.

Q. Do you know what the gross operating expenses and gross earnings of those two trips were?

MR. STRATTON: I object as being incompetent, irrelevant and immaterial. Conditions have changed wonderfully.

THE COURT: What does that rebut?

MR. GORHAM: Part of the testimony that they introduced—Stanley Griffiths—that has not been passed upon by the Court yet. They are endeavoring to show by their witness that the earning power of that boat was $50 a day, and we want to show the net earnings of the vessel for the two succeeding voyages by its owner, in his own business.

THE COURT: That is rebuttal of that portion of the depositions that I have not yet passed on?

MR. GORHAM: Yes.

THE COURT: I will have to see what they are, then, and I will have to pass on them.

MR. GORHAM: They were offered by Mr. Stratton.

THE COURT: Pass on to some other question.

Q. I will ask you whether this barge has ever been aground since you owned her excepting at Anchorage and Mary Island?

A. No.

Q. At Anchorage after this accident?

A. No.

Q. It was grounded after this accident in the mud at Anchorage?

A. Oh, yes.

Q. I will ask you if, on the first day of April, 1917, at Ketchikan, Alaska, you saw Captain Johnson of the tug Commodore?

A. I did.

Q. How do you happen to remember that you saw him on that day?

A. I had come back from the wreck to Ketchikan to get the Commodore to go up to Kasaan to bring a scow down, and Captain Johnson met me on the dock, and it was his first opportunity to get to talk to me about the wreck, and he made it a point to come to me—

MR. STRATTON: We object to that—if they want to impeach this witness let him ask the question.

Q. I only asked you how you happened to know the date, that was all.

A. Yes.

Q. April 1st?

A. Yes.

Q. Where did you see him that day?

A. On the dock at Ketchikan.

Q. What dock?

A. I think it is called Heckman's dock.

Q. At that time and place was anybody else present?

A. No, just he and I.

Q. At that time and place did Captain Johnson state to you that at the time of the wreck of the Bangor he was not in the pilot house but that he was in his bunk?

A. He did. I would like to state other things he told me.

MR. STRATTON: We object to any other statement. They are impeaching the witness, and they have to ask the question and answer it yes or no and that ends it.

THE COURT: I think so.

MR. STRATTON: I think we can simplify that by letting this testimony go in over our objection and your Honor can rule on that when your Honor rules on the other testimony in the depositions, and the objections.

THE COURT: All right.

Q. (By Mr. Gorham): What were the operating expenses of the barge Bangor on the first voyage after the accident involved in this suit?

MR. STRATTON: We object to that upon the ground that it is incompetent, irrelevant and immaterial, and does not tend to prove the damages, if any, sustained in this case—that is not the proper rule by which to compute the damages.

THE COURT: Let the record show that counsel agree that the Court may pass upon this question when it passes upon the other objections that have been made.

A. $5657.99.

Q. The gross earnings on that voyage?

A. $9212.66.

Q. The net earnings?

A. $3554.67.

Q. And how long were you in making that round trip on that voyage?

A. 26 days.

Q. Does that include loading at Seattle?

A. Yes.

Q. And what were your gross operating expenses for the next voyage, the second voyage after the accident?

A. $4962.96.

Q. And what were the gross earnings on your second voyage?

A. $8834.59.

Q. And what were the net earnings of that second voyage?

A. $3871.63.

Q. And how long were you on that voyage?

A. 30 days.

MR. GORHAM: That is all. We rest, except that we would like to make these depositions a part of this record.

MR. STRATTON: Both counsel stipulate that what was

read by them respectively from the Pacific Coast Pilot and Kent's Mechanical Engineers' Pocket Book and Mills on Materials of Construction were correctly read and are correct extracts from the books as read.

(PAGE 1 OF LIBELLANT'S DEPOSITIONS)

United States District Court for the District of Alaska.

First Division.

A. W. MYLROIE,

Libelant,

vs.

BRITISH TUG "COMMODORE", etc.,

Respondent.

BRITISH COLUMBIA MILLS TUG & BARGE co., a corporation,

Claimant.

No. 295. K. A.

BE IT REMEMBERED That, on this 24th day of October, 1917, before me, the undersigned, A. C. Bowman, a Commissioner of the United States District Court for the Western District of Washington, residing at Seattle, in said District, with office at room 536 Central Building, in said City, personally appeared Mr. William H. Gorham, Proctor for the libelant, and Mr. W. B. Stratton, of Farrel, Kane & Stratton, Proctors for the Claimant. Thereupon said Proctors stipulated and agreed to take the deposition of JOHN L. HUBBARD, a witness on behalf of the libelant, before me, waiving notice of taking and signature of the witness, to same, and agreeing that said deposition be used on the trial of said cause.

JOHN L. HUBBARD, the witness named in the foregoing stipulation being duly sworn, testified as follows:

Q. (Mr. Gorham): State your full name, captain?

A. John L. Hubbard.

Q. What is your business?

A. I am at present traveling inspector for the Emergency Fleet Corporation.

Q. What has been your business heretofore?

A. That last fifteen years I have been manager of the Winslow Marine Railway & Shipbuilding company, at Win-

slow, Washington. Prior to that I worked at the trade of shipbuilding for approximately 12 years.

Q. What character of ships?

A. Wooden ships, mostly.

Q. Over-sea ships?

A. Yes, sir.

Q. What character of ships were handled in your yard while you were manager of the Winslow Marine Railway?

A. Principally wooden ships; occasionally steel ones were repaired there.

Q. What were your duties as manager?

A. I made all the estimates for repairs; I made the prices for repairs and the docking of vessels; carried on the work of repairs, and awarded contracts.

Q. Did you build any vessels during that time?

A. Yes, sir.

Q. What tonnage, approximately I mean?

A. Well, varying in tonnage and build. When I took charge of the yard, the last contract completed was No. 110, and when I resigned here in July, we were just completing contract No. 142. That is, 142 vessels of different character.

Q. And were these all deep water vessels?

A. Principally. Some of the later contracts covered barges and scows, and principally Alaska barges for use on the Yukon river, and some scows here for Waterhouse company, used between here and Vancouver. Six car ferrys for the Milwaukee Railway company.

Q. What was the capacity of the yard there, with respect to shipbuilding?

A. Well, it is a yard of considerable importance. We made a practice of bidding on all vessels damaged or requiring docking on the North Pacific Coast, in competition with the Seattle Construction and Dry Dock company or the Yarrows plant at Victoria.

Q. You had how large a dock there at the yard?

A. Took vessels up to 4,000 tons.

Q. I think that is enough to qualify him. Do you know the American barge Bangor?

A. Yes, sir.

Q. Did you know her when she was owned by Griffiths & Sons company?

A. Yes, sir.

Q. Did you ever make an examination of her in the year 1916, an inspection of her, survey?

MR. STRATTON: I object as immaterial,

MR. GORHAM: It is simply preliminary.

A. I cannot say that I did in that particular year. I think we docked her however, to simply paint the bottom, and I just made a casual survey of the bottom, that was all, to see if there was any local damage; but she was only docked for the purpose of painting the bottom to protect her from teredo.

Q. Did you make an examination of her in the winter of 1916 and 1917, or any survey?

A. I did in 1917, along about May.

Q. That was after the accident involved in this lawsuit, the accident on Mary Island?

A. Yes, and I made an examination of the vessel at the time she was wrecked and sold to captain Griffiths.

Q. What year was that?

A. I think that was about 1915.

Q. Was she under rigging at that time?

A. She was a sail vessel up to that time, and was going out of the straits here, under sail, with a cargo for San Pedro or somewhere in the Southern California ports, and in a fog got on the Vancouver shore; was badly strained, and the bottom was torn badly and frames broken. I made an estimate, I think it was for the owners. She was brought to our plant in a leaking condition and the lumber was unloaded on our docks, and subsequently loaded on another vessel for carrying to its destination. And I was requested by the owners to make an estimate of the cost of repairs at that time. I examined her and gave the price for repairs on her. The owners considered that price was greater than they would be justified in paying for the restoring of the vessel at that time, because freights were very low and there was not very much demand for sailing vessels of that character. So they decided to abandon her as a total loss and let the Insurance company recover whatever they could from the wreck.

Q. And she was sold to captain Griffiths?

A. She was sold to captain Griffiths.

Q. Now, state whether or not captain Griffiths put her in commission again?

A. Not in the manner I had estimated for, because I had based my estimate on restoring the vessel to her condition as a sailing vessel the same as she was prior to her trouble at the cape. Captain Griffiths, after he bought her, intended her only for towing as a barge, and brought her to Seattle here and made temporary repairs that he thought were suf-

ficient to enable her to be used in the class of work that he intended her for.

Q. Did you know what those repairs were?

A. I do know, yes. I saw the vessel after they had been made.

Q. So that you know her condition then, after captain Griffiths had put her in commission as a barge?

A. Yes, sir.

Q. In your survey of the vessel in May 1917, after the accident involved in this law suit on Mary Island, was how thorough? Was she hauled out in your yard?

A. Yes. At that time I was leaving—expecting to leave Winslow shortly, and was turning matters over to Mr. Lacy who succeeded me there in the management of the yard; and for the matter of two or three months prior to my resignation, I was going over the various jobs that would come on the dock with Mr. Lacy, in order to get him familiar with the methods of estimating for that character of repairs. And in this vessel, I turned the estimate over to him. I went over it with Mr. Mylroie and Mr. Lacy one half day, when she was first put on the dock. And while I made up no figures of my own as to the cost of repairs at that time, any more than just in a general way and expressed an opinion here to Mr. Mylroie, who was anxious to determine the point as to whether he would make permanent repairs and restore the vessel as a sailing vessel again, or whether he would make temporary repairs and restore her to about the condition she was before she was damaged in his hands. And the figures I gave him were only based on restoring the bottom to a condition where he could fit spars and engines in, as he was talking about using her as an auxiliary power schooner.

MR. STRATTON: I object to all this character of testimony as immaterial. And furthermore, that there is no issue as to the cost of repairing the barge, or as to the amount of damage to the barge Bangor.

MR. GORHAM: Of course the amount of damage to the Bangor is included in the allegation of our damage.

Q. State, captain, what, in your opinion, it would cost Mr. Mylroie, at the time the vessel was on your dock in May 1917, to put her in as good condition as she was when you saw her under the ownership of Captain Griffiths repaired and put in commission as a barge?

MR. STRATTON: I object to that on the ground that it is irrelevant and immaterial. That there is no allegation

in the libel that the barge was damaged, or that any repairs were necessary. And, on the further ground that the question is incompetent and improper. It appears that the question asked is as to what it would cost to put the barge in the same condition as it was two years, or approximately, before she was damaged.

MR. GORHAM: We will give notice at this time that we will amend our libel to allege, in the matter of the allegation of damages, to show our loss by reason of the negligence alleged in the libel, was damage to the hull, loss and damage to the cargo, salvage operations at Ketchikan and Mary Island, and temporary repairs at Mary Island and Ketchikan.

Q. You may answer the question, captain.

A. I understand the question. I anticipated something of that character being asked, and have hurriedly made up an estimate here, which I consider not far from being accurate, covering the renewing of such damaged plank as existed on the bottom, and also the renewal of the keel, which was in a badly damaged condition, she having been on the rocks. And including the calking of the bottom up to the main deck entire, which would be necessary by reason of considerable of the planking having to be renewed, and other parts of it being strained so that there was a possibility of leakage there. And, after this corking, cementing the seams, and painting the vessel to the usual height with copper paint on the bottom; and then painting the topsides up to the deck line with one coat of hull paint, but not including any interior repairs or any repairs to the deck or anything of that nature, as I understand there was no damage to that part of the vessel, although there was some statement regarding the possible necessity for calking the deck. But I cannot say that that would be hardly possible under the conditions shown on the bottom, that the vessel had been strained very much. So, I have estimated only for calking the hull. Now, the total for renewing of keel and planking, which consisted in renewal of garboard strakes, that is the two strakes next to the keel, entire. And on the port bilge, the renewal of approximately 210 lineal feet of planking there; and on the port beam, renewal of approximately 480 lineal feet of planking where it was torn and bruised by contact with the rocks. Renewing the shoe of the keel entire length. And calking bottom as before stated from keel to the deck line. Painting the bottom and painting the topsides. The total cost, including the docking charges, and based on the present rate for labor and the cost of material—

Q. You mean the present rate then, in May.

A. The existing rate at that time, would be $11,750.

Q. Now, does that include any work or material not necessary by reason of the damage to her occasioned by going on Mary Island?

MR. STRATTON: I object. The witness does not know what damage was occasioned by going on Mary Island.

A. I do not get your question entirely.

Q. Does the estimate you have made include any item of labor or material not made necessary by reason of her grounding on the rocks at Mary Island?

MR. STRATTON: I renew my objection.

A. I will say it does not.

Q. Now how did you determine that the items going to make up the sum you have stated, were made necessary by the grounding on the rocks at Mary Island in March 1917?

A. The fact was very apparent, the keel being torn and split off a large area, and the planked portions of it being torn away clear down to the frames of the ship, and all that has been specified in these 480 lineal feet on the port beam there; that was in a damaged condition so that it was necessary to put in new plank there to have it in any kind of shape to be calked water tight.

Q. Could you tell from your survey whether that damaged condition was a recent damage?

A. Oh, very apparent; strips of wood hanging down where they had been on the jagged rocks. And the same way on the starboard bilge, the planks were started off there and the fastenings pulled out of the frames, and in order to renew these it would not be good practice to put in short pieces. You have to carry them from one butt to another to get the proper shift of the butts. And so this estimate includes the renewing of such planks as had to be renewed from butt to butt, as they were originally.

Q. Now you say that estimate you now testify to is not very far from being accurate?

A. Yes, sir.

Q. What margin do you care to leave?

A. Well, if I was still conducting the Winslow Marine Railway & Shipbuilding company's business there, I would make that as my price for repairing the vessel, if I was asked to submit an estimate.

Q. And that—

A. And that would include such margin of profit as would accrue to the Dry Dock, and it would be approximately

what Mr. Mylroie or any one would have to pay to have that amount of repairs done.

Q. Now is that based upon the present rate of wages, cost of labor and material, in the month of October 1917, or on the cost of May 1917?

A. The existing rates in May 1917. The rates would be higher now, increased cost of labor and material.

Q. How long was she in your yard in May, if you remember?

A. I think a day and a half. She was lying there longer than that. She made some temporary repairs.

CROSS EXAMINATION

BY MR. STRATTON: Do you know what repairs were made to the Bangor after she stranded up on Mary's Island?

A. Only from hearsay. I have talked with Mr. Lacy, afterwards, and I think with Mr. Mylroie here.

Q. Was she repaired to any extent at your shipyard over there?

A. Just sufficient to enable her to hurriedly get off the dock and deliver some cargo, as I understood he was anxious to complete the delivery of it. And, as I was told, the repairs were only of a very temporary nature, they calked up the seams in a manner to keep her afloat and deliver one or two cargoes; that is as I understood it.

Q. Do you know whether she has been permanently repaired to her original condition as before she was stranded?

MR. GORHAM: I object as immaterial. The measure of our recovery would be the damage at the time of the accident, whether we had her repaired afterwards or not.

A. I could not say in that regard. I did not see the vessel after she had been repaired. I understood that was the manner in which she was repaired.

Q. You do not know whether she has been permanently repaired so as to restore her to the condition she was in before the accident or not?

A. Not from observation.

Q. Do you know from conversation with Mr. Mylroie?

A. As I stated before, I understood it was only of a very temporary nature, just to enable him to float the vessel.

Q. And that these are the only repairs that have been made to the present time?

A. Yes, sir.

Q. You got that information from Mylroie?

A. Yes. Also from Mr. Lacy, the present manager of the Ship Yard.

Q. Now, when you made up your estimate in your mind, you went more or less into detail to determine the cost of these repairs, didn't you- You would have to?

A. This evening?

Q. Or at the time the vessel was on the ways?

A. Yes, sir.

Q. Did you make an estimate at the time the ship was there in May?

A. Only in a general way, not to go into details. I gave him an opinion of about what it would cost to restore the vessel to the condition where he could put gas engines in and use her outside, as a vessel fit to deliver cargos from here to the Sandwich islands or California coast.

Q. Would that be placing the vessel in the same condition she was in before this accident?

A. No. It would include taking care of some of the damage that existed before this accident on Mary's island; a damage that had been received at the time the vessel was abandoned by her original owners.

Q. After which captain Griffiths got her.

A. Yes, sir.

Q. When was that?

A. I think that was in January 1915.

Q. What damage that had been done in 1915 existed at the time the vessel was stranded on Mary's island?

A. Well, as I stated to Mr. Gorham here, captain Griffiths only made temporary repairs of the vessel. After the accident the cost of restoring her to the original condition was such that the owners decided to abandon her rather than to make the repairs. So you can judge from that how extensive.

Q. You mean that Griffiths only made temporary repairs.

A. Well, he did not do the work that would permit the vessel to go outside as a sailing vessel. For instance, today, if the vessel is afloat, she has a great number of her frames on the bottom badly splintered and bruised or broken, from contact with the rocks at the Cape when she was abandoned. They have never been renewed. Captain Griffith simply took off the damaged planks on the bottom, the same as existed here when she grounded on Mary's island and perhaps a more extensive damage; he removed these planks and put in fillers between the frames. The frames are put up possibly 10 or 12 inches between; put in new timbers in these spaces and left the damaged frames still there, intending these fillers to compensate for the broken and splintered frames

still there. They were put in there and new plank put on and stringers put on the face of that planking and screw bolts put through from the inside to draw the ceiling down that had been raised up by these broken frames. The pressure or stress on the bottom had been so great at the Cape that the ceiling that lies on top of the frame inside the ship had been bulged out in places two feet. That had to be drawn back in place to its original position. That was his reason for putting heavier strips of plank on the outside at intervals there, and putting screw bolts down through there and drawing these lifted ceiling strakes back to the original position as near as they could. That is the manner in which they took care of them. The keel was damaged also at that time and he put in a keel and calked the ship. But further than that he did not do anything. She was far from being restored to a seaworthy condition that would be passed by any inspectors, or even the Local United States Inspectors, to go to sea as a seaworthy vessel; she would not be passed for that with broken frames.

Q. Well, your estimate of $11,750 includes putting in new frames?

A. It does not.

Q. Would you use the same old frames?

A. Fortunately in this instance, the planking that was damaged at Mary's island, did not occur in the same position where the frames had been so badly broken, so that it would be entirely a different location. And in order to renew these frames you would have to take off the planking that captain Griffiths has installed there, that is apparently in good condition, as far as the planking is concerned. So I made no estimate for that.

Q. Do you know how old the Bangor is?

A. I could not tell you offhand here, but I think she is a vessel near thirty years of age. She was built in Bath, Maine, a four masted schooner, and came out here for operation on this coast.

Q. Now you say there would have to be all of two garboard strakes put in?

A. Yes, sir.

Q. Those are strakes near the keel?

A. Yes, sir, near the keel.

Q. What do they consist of?

A. I think the dimensions were 6 x 14 inch planks, fastened to the frames there next to the keel. And the damage to the keel was so severe, the rocks crushed up into these planks, you see they joined the keel; that is the way they

came to be damaged, and made it necessary that they should be renewed.

Q. These garboard strakes were on which side of the vessel?

A. Both sides. When we say strakes we mean two, one on either side of the keel. These are the first planks next to the keel.

Q. How many feet of lumber would there be in those two garboard strakes?

A. The length of the vessel is 165 feet, and the lumber in these planks amounted to 4680 board feet. That is allowing for some additional length there for the scarfs to lap.

Q. What would be the market price at that time of the lumber for these garboard strakes?

A. The length of lumber required for plank of that kind, and of the character that would be sawed for plank on the bottom of the ship, would be worth about $45.00 a thousand.

Q. That was at your plant.

A. Yes. That was our price at that time, four and a half cents per foot.

Q. The length that would be necessary to replace these garboard strakes, what plank would be necessary?

A. Take 165 feet on each side of the ship.

Q. I thought you meant when you said the length of each plank—

A. They would be in sections, possibly forty to sixty or seventy feet long, as you get them from the mill, and where they are joined together, we lap them five feet, so that you have to take additional length of plank to make up that 165 feet, when they are installed.

Q. And what would it cost to install these garboard strakes?

A. Well, you mean segregate that from the other cost of repairs?

Q. Yes. That is the way you determined what the cost would be?

A. The way I got at that, I took the board feet contained in that, at so much and determined the cost of the material, fastenings, etc., and then estimated from my own judgment as to how much labor and time it would take to remove the old ones and replace with the new. We calculate that labor on the basis of the cost, plus profit accruing to the Yard or Dry Dock.

Q. What ratio of profit did you count in making this estimate?

A. We calculate about 15% on labor and material, to take care of the overhead.

Q. What would the 230 feet of plank for the bilge be worth at that time?

A. It would cost practically the same as the garboard strakes. They would be 4 x 14, each plank; and there would be no difference in the price from 6 x 14.

Q. Well, how much a thousand would that be?

A. $45.00 a thousand.

Q. And 210 lineal feet?

A. On the bilge, yes.

Q. So that would only be about a fifth of a thousand.

A. Yes, lineal feet; four and two thirds feet per lineal foot. Four and two thirds times 210, that would give you the number of board feet.

Q. You say 480 feet of plank on the port beam. Is that board feet you have reference to?

A. No, that is lineal feet.

Q. How many board feet?

A. That would be four and two thirds times 480 lineal feet.

Q. And the price of the lumber $45 a thousand.

A. Yes, sir.

Q. Now what is this shoe on the keel?

A. That is 4 x 16 inches.

Q. And how much would there be in that?

A. Five feet per lineal foot. 165 lineal feet multiplied by five would give the number of board feet.

Q. And that lumber would be $45 a thousand.

A. Yes, sir.

Q. Now that was all the lumber that was necessary to use?

A. You have got a keel there.

Q. How much lumber?

A. 16 x 18, and in that keel you have got 4680 board feet.

Q. At $45 a thousand.

A. Yes.

Q. Now, you have named all the lumber that is used in these repairs, or would necessarily be used in these repairs?

A. Yes, sir.

Q. Now, what other materials were necessary to use in these repairs?

A. Well, you would require a quantity of spikes for the planking and locust tree nails.

Q. How many spikes?

A. The frames are usually spaced about 32 inches. You

would require in each strake of plank three ½ x 10 inch galvanized spikes, and you would require two locust tree nails in each frame. The average length of these planks are about 60 feet, and these frames being spaced 32 inch spaces you can determine the number of spikes and tree nails from that.

Q. How are these spikes sold, by the pound or piece?

A. By the pound. And you have to take a table for the pounds for each sized spike. There are tables showing how many spikes are contained in a hundred pounds.

Q. What would be the size of these spikes?

A. ½ x 10.

Q. Half inch in diameter?

A. Half inch square.

Q. The spikes are square.

A. The spikes are square.

Q. And ten inches long.

A. Yes, sir.

Q. And the nails?

A. There are no nails required, that is all that is used, that and the locust tree nails, which are wood.

Q. Can you figure how many pounds of spikes would be needed?

A. I can.

Q. Will you do it?

A. I would have to have my table here to determine the pounds per hundred of that sized spike. I cannot do that without a table.

Q. Give the number of spikes that would be used and the other can be supplied, without keeping you here.

A. 674 spikes in a plank.

Q. What other material would be used in repairing that vessel?

A. Would require bolt fastenings, drift-bolts for fastening the keel.

Q. How are these sold, by the pound?

A. Yes. They are made from round bar iron, the required length and driven from underneath the keel up into the frames.

Q. How many pounds would that take?

A. The bolts of the size required there would weigh approximately five pounds per lineal foot, and the bolts would average five feet in length, that would be twenty five pounds each, and you would require in each frame for the length of the keel, four bolts. That is 100 pounds per frame. That vessel is 165 feet long and those frames are spaced 32 inch centers. You can get at it from that. Do you want me to figure it?

Q. Yes, if you will figure it up.
A. Six thousand pounds of iron.
Q. What was that worth a pound at that time?
A. Six cents.
Q. The price per pound of the other bolts you mentioned previously to the six thousand, would depend on the size of the bolts.
A. I did not mention any other bolts.
Q. Well, these square bolts?
A. Spikes. That would depend on the pounds they weighed.
Q. What is your judgment?
A. These spikes, I would imagine, would weigh about one pound each, and they would cost at that time eight cents a pound, galvanized spikes.
Q. And at that rate, the cost of these spikes would be how much?
A. They amounted to 674 pounds, according to my judgment as to the weight, one pound each, would be correct. Eight times that, the cost would be $53.92 for those spikes.
Q. What other material, that you have not mentioned in my cross examination here, would be used?
A. You would require oakum.
Q. How much oakum, how many pounds?
A. You would require about 1600 pounds.
Q. And that was worth how much a pound?
A. At that time it was worth seven cents.
Q. What else, what other material?
A. I beg your pardon. It was worth seven dollars a bale for a fifty pound bale; that was fourteen cents a pound.
Q. What other material now?
A. You would require cement; copper paint.
Q. How much cement?
A. 2,000 pounds would do the job.
Q. And what was that worth?
A. A cent and a half a pound.
Q. What else?
A. Copper paint.
Q. How much copper paint?
A. Copper paint was $2.50 a gallon.
Q. How many gallons?
A. You would require 75 gallons.
Q. What else?
A. You would require 25 gallons of marine black, for the top sides, approximately $1.25 a gallon.
Q. What else?
A. I cannot think of any other material.

Q. So the sum of all these figures you have given me on cross-examination, represents the reasonable value of the material that would be put into this vessel, in making the repairs that you have mentioned?

A. Yes, sir.

Q. And the reasonable cost of which would be $11,750?

A. Yes, sir.

Q. Now, what other item did you take into consideration in determining the approximate cost of making these repairs at $11,750?

A. The cost of dry docking fees.

Q. What would the dry docking fees be, what did you count them?

A. To renew the keel and renew the planking, calk the bottom I have figured it would take 12 days.

Q. How much per day?

A. I do not have at my finger ends the tonnage. I presume fifty dollars per day, with $100 for the haul, that would make $650.

Q. Your estimate.

A. I estimate it would be fifty dollars a day. I felt in my mind it would be under the minimum, she would come in the minimum rate, and the minimum rate is fifty dollars a day. If the vessel was a large vessel it would cost more, it would be so much per ton, and if her tonnage don't make fifty dollars, the minimum is fifty dollars.

Q. What else did you take into consideration in arriving at the figure of $11,750?

A. The cost of labor.

Q. How did you determine the cost of labor?

A. I estimated the approximate number of men that would be required to do the work and the time required in which to do it.

Q. Just explain so that the Court can understand how you arrived at the number of men that would be necessary and the number of days and the price per day, in getting the aggregate cost of labor? Give it in detail.

A. I have my judgment as to how many men it would take.

Q. It would be a matter of judgment and opinion. That is what I want.

A. You want to know how many men it would take to do the job?

Q. Yes, and how much per day. What the total cost of labor would be. I want to get the total cost of the labor and the details of how you arrived at the total cost?

A. In other words, you want to get me in a corner, and

find out whether the $11,000 I have given here is in accordance with this statement?

Q. I don't want to get you in a corner. I want to know more of the details; you have given a lump sum. I want to know how you arrive at it.

A. I do not know that it is incumbent on me to make a detailed list.

Q. You can refuse, if you wish to.

A. I have lost a trip to Tacoma that I was to make; I was supposed to come down here for a few minutes. I can go into this and make a detailed statement if desired. But I do not want to offhand go into this and give a lot of figures and ball myself all up and say something that I cannot substantiate.

Q. I think we are entitled to this estimate right here on the spot. You have given your opinion that it would amount to $11,750, and we think we are entitled to know right here and now how you arrived at it.

A. I stated when I gave that figure that I had hurriedly gone over the matter. Mylroie came up and outlined to me approximately what was wanted here, and I had hurriedly made up the estimate, and I gave the amount of that, in my judgment as to what it would cost. Now, to go into details here, and not have time to check the matter up, I am liable to have complications that might get me into trouble.

Q. Well, how much of this estimate did you put down for labor?

A. Well, cannot you determine from the reporters notes there, the figures I have already given?

Q. No, I don't think so.

A. I have enumerated everything but the labor.

Q. Well, I would like to know how many men you were going to employ and the number of days and the rate of wages, etc.

MR. GORHAM: Now let me interpose a statement. If the witness has got the detailed estimate in his possession or that was tentatively made at the time, why we will ask the witness to produce that and we will produce it.

MR. STRATTON: He said it was merely an estimate.

Q. (Mr. Gorham): Were there any figures taken down at the time?

A. No, I only made an approximate estimate for his benefit, to restore the vessel there. I made no estimates of this character. I have only, as I stated before, made this hurriedly while coming down on the car from the office.

Q. (Mr. Stratton): This estimate you have given of $11,750 was made up this evening?

A. Yes, sir.

Q. How long did it take you to make it up?

A. I think a half an hour.

Q. I am trying to get at how much you figured for labor, how many men?

A. I did not go into it in that manner. You asked me how you would determine that, if you remember your question. Now, I took so much per lineal foot for installing that planking, and have got my totals from that. And knowing in my own mind that these prices per lineal foot were approximately what it would cost to remove the old, and knew from having estimated that character of work many times before, and I have based my figures here for the renewal of that planking and keel at so much per lineal foot.

Q. That is for the renewal of the planking and keel?

A. I can give the items as I have them here in this estimate without counting up the number of men.

Q. That did not take into consideration the cost of the plank and keel?

A. Yes, that includes the cost of the planking.

Q. Then your figures would be in duplication—

A. Duplication of what you have got there. Now you approached this thing in your own way and I gave you the cost of spikes and so on, and then I saw you were trying to corner me down here somewhere and get me into a corner and I don't propose to get there.

Q. No, I am not trying to corner you. That is a mistake. I simply want to get the facts.

A. Well, I am willing to give you all I can in the time I have been getting them together.

Q. What do I understand you about your answer with respect to the cost of labor?

A. I do not just get your question.

Q. I asked you to give me a detailed statement so that we could determine how you arrived at the cost of the labor to be expended in repairing the vessel. What is your answer to that?

A. I based that in this particular estimate here, on so much per lineal foot; an allowance of so much per lineal foot for the plank to be restored and the keel restored, including labor and the cost of the material.

Q. Do I understand you to say that you have given me all the items except the cost of the labor?

A. Yes, sir.

Q. And I ask you how you would determine the cost of

labor and you said you ascertained the number of men and the length of time which it took to make the repairs?

A. Yes, sir.

Q. And the price for the labor, and in that way you determined the cost of the labor.

A. Yes.

Q. Now I have asked you about that, so that we can get it down in the record.

A. Well, I haven't got sufficient time to do that here, without going into the matter carefully and figuring up these costs and segregating them.

Q. If you haven't time here, take your time and give it to us later

Q. (Mr. Gorham). When could you return?

A. I will be back here tomorrow morning.

Q. When could you make the memorandum showing the figures asked about?

A. Tomorrow evening.

Q. (Mr. Stratton). Now, as I understand, you have already given them as to all the items of cost except the labor?

A. Yes.

Q. How long would it take you to figure up the cost of the labor, captain?

A. Why, probably an hour, if I was uninterrupted.

Q. Well, give the Court the figures that you used in arriving at the $11,750, if you will?

A. Renewing keel, $1980. Dry dock eight days for doing this work, $400. That is eight lay-days, that don't include the hauling. Calking bottom, 19,500 feet at twenty cents per lineal foot, comes to $3900. And the dry dock is absorbed in this renewing of the keel; that would be done largely at the time the keel was being renewed, so that there would be no dry dock charge. Dry dock for renewing damaged plank, additional to charges for renewing keel, I put down $300.

Q. That is the dry dock charges were $300.

A. Yes. Hauling of the vessel $50 additional, which covered one of these days. Now the labor of painting and cementing including the cost of paint, $500. The summary is, for the calking and painting, $6708.00. Garboard planking, $300. Bottom planking $2760.00. New garboards, $1980.00. The total of which is $11,748, and I said we will say $11,750. That is all I have here.

Q. And do all the figures you have given us in your last answer equal, when added up, $11,750, or approximately?

A. Yes, sir. The rates I have estimated for renewing

the planking and keel, if that is any benefit to you, I can give you that.

Q. All right, do so.

A. For renewing the keel, I figured that the cost of tearing out the old and renewing and replacing with new, including the cost of lumber and material, would be $12 per lineal foot, that included the fastening and labor. That makes that item $1980. Then you have the dry dock additional of $400, and makes $2380 for the keel alone. The calking, I gave you the rate there of twenty cents per foot for that.

Q. If these repairs were all made, how much more would the vessel be worth because of the new material in place of the old?

A. I would not consider that she would be any better. I think the deterioration of the vessel, due to having to bore additional holes to fasten the planks, etc, would be more, if anything, than the advantage accruing by having new lumber replaced for that which had been damaged. In other words, the lumber that was there originally was just as good for that purpose as the new, after it had been replaced, and you were minus the damage caused by the boring of the holes there to fasten the new material.

Q. In other words, there was no added value on account of the new for the old?

A. None.

Q. It is generally customary, is it not, to count the new more valuable than the old?

A. In some instances. For instance, if the damage had occurred up on the top side, where there is deterioration due to decay, you would possibly get an advantage there for the new material in place of material that was partly decayed or something like that, but not decayed to an extent that it was necessary to renew. While on the bottom, that is under the water and always submerged, and unless it is attacked by teredo or not kept properly painted and sea-life has destroyed it, that timber would last there for a thousand years and never deteriorate, as long as it was saturated with water.

Seattle, Washington,
October 23, 1917.

Estimate of cost of repairs to Barge "Bangor" to restore her to the same degree of seaworthiness as existed at the time she went ashore on Mary's Island about May, 1917. Consisting in the following:

210 Lin. Ft. of plank on starboard bilge to renew;
480 Lin. Ft. of plank on port bottom to renew;

Garboard strakes, entire to renew;
Forefoot at forward end of keel to renew;
Bottom and top sides to caulk entire; approx. 19,500 lin. ft. of seams;
Bottom to light load line to cement and paint;
Two coats "Woolsey's Best Copper Paint";
Top sides to paint:
One coat "Marine Black",
Vessel to be drydocked in order to effect above repairs.

1. RENEWING KEEL & SHOE:

Material, 16"x18" keel, 195 lin. ft. including 3 scarphs: 4560 ft. B. M. @ 4½c per ft.	$ 205.20
Bolts for fastening same, four in each frame, for 65 frames: 260 bolts @ 25lb each, 6500lb @ 8c lb	520.00
25 keel blocks split out, @ 1.00 each	25.00
Shoes and blocking for bottom while keel is removed,	50.00
Labor carpenters, 24 men 10 days, @ 6.00 per day,	1,440.00
Foreman, 10 days, @ 10.00	100.00
Use of dry dock—hauling,	100.00
9 lay days @ $50.00 per day,	450.00
Renewing shoe 4"x16", 165 lineal ft., 825 ft. B. M. @ 4½c per B. ft.	37.12
135—½x9" galv. boat spikes Approx. 200lb @ .08c	16.00
Copper paint for keel & shoe, 10 gal. @ 2.50 per gal.	25.00
Superintendence A/c of shoe,	2.50
Labor installing, 6 men, 1 day @ 6.00 per day	36.00
Total for keel and shoe,	$2,986.82

(Signed) John L. Hubbard,

Seattle, Wash. Oct. 23rd, 1917.

BARGE "BANGOR" (Continued).

For.	2,986.82
Renewing forefoot at forward end of keel for approx. 12 ft. 16x26" timber for same, 768 ft. B. M. @ 45.00 per M.	$ 34.56
Bolt fastenings for same, Approx. 500lb, @ .08c	40.00

Labor fitting and installing same	
6 men 3 days: 18 days, @ $6.00	108.00
Copper paint and painting,	5.00
(Total item No. 1)	3,174.33

2. Renewing 210 lin. ft. of planking on starboard bilge, and 480 lin. ft. on port bottom:

Total of 690 lin. ft. of 4x16" planking: 3680 ft. B. M. @ 4½c per B. ft.	165.60
675 ½x10" galv. boat spikes @ 8c lb for approx. 900 lb	72.00
460 1 ¼" Locust treenails @ .25c each,	130.00
Caulking new plank, 10 bales oakum, @ 7.00 per bale,	70.00
500 lb cement for seams, @ 1½c lb	7.50
30 gal. Woolsey's Best Copper Paint @ 2.50 per gal.	75.00
Labor carpenters installing:	
32 men, 10 days, @ $6.00 per day,	1,920.00
Foreman 10 days, @ 10.00 per day,	100.00
Caulkers, 10 men, 3 days, @ 7.00 per day	210.00
Laborers Painting and cementing new plank	40.00
Total for renewing entire,	2,789.60

3. Renewing garboard plank, 6x16" 330 lin. ft. 2640 ft. B. M. @ 4½c 118.80

300 ⅞"x18" galv. leaded bolts for fastening garboards @ 6.00 each, 1800 lb, @ 10c lb	180.00
Edge bolts for same, 150 ⅞x30" bolts (drift bolts) @ .12 lb each, 1800 lb, @ .10c	180.00
4 bales oakum for caulking @ 7.00 per bale	28.00

BARGE "BANGOR" (Continued).

(Item No. 3. Continued)

275 lb cement, @ 1½c	4.00
4 gals. Copper Paint, @ 2.50 per gal.	10.00
Labor:	
24 carpenters, 5 days, @ 6.00 (*sic*)	7.20
Foreman, 5 days, @ 10.00	50.00
Dry dock, 4 lay days, @ 50.00	200.00
Total for garboards,	$ 778.00

4. Caulking bottom and top sides entire:
19,500 lin. ft. of seams, @ .20c per lin. ft.

Covering labor & material, (dockage absorbed in keel and plank items) 3,900.00

5. Cementing & Painting bottom and painting top sides,
Labor and material, ... 600.00

6. Use air, air tools, paint brushes, brooms, etc. 508.07

SUMMARY.

Item No. 1	3,174.33
Item No. 2	2,789.60
Item No. 3	778.00
Item No. 4	3,900.00
Item No. 5	600.00
Item No. 6	508.07
Total	$11,750.00

(Signed) John L. Hubbard
Seattle, Wash. Oct. 23rd 1917.

Seattle, Washington, October 26, 1917.

The Proctors being present on this day, the deposition of Capt. Thomas Grant, on behalf of the libelant, was taken under the stipulation set forth on page 1 hereof.

Capt. THOMAS GRANT, a witness called on behalf of the libelant, pursuant to the foregoing stipulations, after being duly sworn, testified as follows:

Q. (Mr. Gorham). What is your business?
A. Master mariner.
Q. How long have you been a master mariner?
A. 1879 I took my first master's papers.
Q. Where is your residence?
A. At the present time in Tacoma.
Q. How long have you lived on Puget Sound?
A. I have been here constantly since 1875, except one trip to Callao.
Q. What has been your business during your residence on Puget Sound for the last thirty five years?
A. In the steamboat business all the time.
Q. What capacity, as master?
A. Well, master since 1879; before that deckhand, mate.
Q. And in what character of vessels have you acted as master.
A. Principally tugboats.
Q. What character of tugs?
A. I was six years on the Pioneer; she is a nice little steel tug.

Q. Is she an Ocean going tug?

A. Yes. Built in Philadelphia.

Q. Name some of the other tugs you have been master of, ocean going tugs, if any?

A. Well, I have been master of the tug Discovery, ocean going. Not so large as the Pioneer, but always did ocean work with her. And the Blakeley tug Politofsky. The rest were small tugs which I owned.

Q. Sea Lion?

A. I never was on the Sea Lion.

Q. Where did these tugs operate as tugs while you were master?

A. Well, the Pioneer belonged to the Port Discovery Mill company. I towed logs part of the time and ships part of the time, from sea to different ports, Nanaimo, Vancouver and Puget Sound ports.

Q. Ever do any Alaska towing? Towing in Alaskan waters?

A. Yes, sir.

Q. To what extent?

A. I towed a big barge, partly owned by myself and C. W. Cook. I towed all the material for the plant of the Gypsum company up there.

Q. That is in southeastern Alaska?

A. Yes, sir.

Q. What is your business now?

A. I am official pilot for the O. S. Steamship company. The Japanese line.

Q. How long have you held that position?

A. Going on my fourth year now.

Q. And during your residence in Puget Sound, about how many years did you put in as master of tugs, approximately, I mean, captain?

A. Twelve years straight. Six years on the Pioneer and six years immediately following in the tug Discovery.

Q. How much of these twelve years were engaged in sea going towage, that is towing from the sea to ports on Puget Sound and back to sea?

A. Oh, I should judge about half the time.

Q. Now captain, are you familiar with the barge Bangor? Do you know the vessel at all?

A. I know her well, that is I towed her lots of times when masters were on her, when she was a sailing schooner.

Q. And where did you tow her?

A. Towed her up to different points where she loaded lumber at the mills.

Q. From where?

A. From sea, wherever we picked her up in the straits.

Q. This was the barge Bangor that was built at Eureka, California?

A. Yes, sir, she was the schooner Bangor.

Q. Mr. Hubbard stated she was built at Bath, Maine, but that was an error. Do you know of the British tug Commodore?

A. Yes, sir. I have been aboard of her. Not at sea, but as she lay alongside the wharf.

Q. An ocean going tug?

A. Oh, yes.

Q. Now captain, given this tug Commodore, towing this American barge Bangor, laden with approximately a thousand tons of cargo; the tow line 1⅛th inch steel hawser, one end made fast to towing machine in the tug, and the other end by means of 1¾th wrought iron shackle made fast to the anchor chain of the barge; time, 2 a. m. March 26th, 1917; place, Revillagigedo channel, southeastern Alaskan waters; weather conditions, occasional snow squalls; wind, east southeast, velocity of 30 miles an hour and upwards; weather dirty; ebb tide, with little or no current on account of direction and velocity of the wind. The tug with the barge in tow properly following, proceeding north, according to the tug's log book, about seven and a half knots per hour over the ground. The tug finding herself out of her course, and almost in the breakers off the east shore of Mary island. If, at that point, under these conditions, the tug put her wheel hard over to avoid the breakers, what effect would it produce upon the towing apparatus, the hawser, towline and fastenings?

A. The ship supposed to be following the boat.

Q. Supposed to be following the tug.

A. Well, it would put an awful strain on the line when fetched up; it was bound to make a circle in the water.

Q. And you say it would put an awful strain on the line?

A. Bound to.

Q. Now, assuming that immediately following her putting her wheel hard over, the shackle parted, what would you say was the cause of the parting of the shackle, under the conditions I have enumerated?

MR. STRATTON: I object to that. The witness is not qualified, and no evidence as to the condition of the shackle or its strength. I think the testimony is incompetent, irrelevant, and immaterial; I object for that reason.

Q. Assuming it was a proper shackle for that tow. This

is all hypothetical, of course. What would you say would be the cause, from your experience as a seafaring man, what would you say would be the cause of breaking of that shackle?

A. Well, the supposition is when the hawser tightened, after forming a circle in the water, it would come up with a snap, and something is almost bound to part, providing the tug and the tow was about equal in weight. That tug is nearly as big as the vessel she was towing.

Q. Well, you say something was bound to part. You mean the hawser was bound to part or the shackle was bound to part?

A. Something; the tow or the tug would have to give, to take the strain out of that hawser. I have seen hawsers fly twenty-five feet in the air under just such conditions.

Q. Now, I show you a chart which is No. 8075, United States Coast and Geodetic survey. With this tug and that barge in tow, under the conditions of weather and line of hawser that I have given you, where the log of the tug showed that the tug passed Tree Point at 11:19 p. m. on March 25th, bound for Ketchikan, under the conditions of the weather that I have given, what is the duty of the tug toward her tow with respect to insuring safety of the barge on her passage from Tree Point to Ketchikan?

A. The duty of the tug boat?

Q. Yes.

A. Well, he ought to have this light—did he see this light?

Q. He picked up Tree Point light at 11:19 p. m.

A. Well, I think the first duty would be to find how far he was off Tree Point. That he could do by consulting his log, knowing the speed of the ship.

Q. How many bearings would he have to take?

A. Well, a four point bearing, if he knew the exact speed of his ship, and set his course accordingly.

Q. How would he know the speed of his ship?

A. By his log.

Q. By his tackle log?

A. Yes.

Q. Is it his duty to have a tackle log attached, under these conditions?

A. That is good seamanship. I do not know whether it is his duty or not.

Q. Was it good seamanship?

A. Good seamanship would have the log out; I think it is a requisite by the insurance people.

Q. Now, as he came north, how would he avoid Mary island on the one side and the Black Rocks on the other side of the channel? What precautions would he take?

A. Well, he would take the chart and measure the distance to Black Rock and run out to get a four point bearing, and see if he was three or five miles off there, a safe distance off Black Rock; and then if he did not open the light or some distinguishing mark, he could haul off to the eastward.

Q. Well, would he expect to see a light after he left Tree Point?

A. If he was on the right course, he would open it about the time he had Black Rock abeam.

Q. What light would he open?

A. Mary Island.

Q. There is a light on Mary island?

MR. STRATTON: The witness has not shown he is at all familiar with the waters over which the tug and barge passed.

MR. GORHAM: He has testified pretty well as to his knowledge; he has not examined the chart.

Q. Captain, are you familiar with this channel?

A. Yes.

Q. You have been up there?

A. Yes. I run my own boat up there in 1898, and I towed in there in 1904, I think it was. I towed that big barge Skookum up there.

Q. Proceed, captain, as to what would be his duty toward the tow to insure her safety in her passage to Ketchikan, after leaving Tree Point?

MR. STRATTON: I renew my objection.

Q. How would he know, if he had a chart aboard, when he was in proximity of Black Rocks?

A. Well, they are pretty hard to distinguish by sight; the only thing would be to run on time.

Q. Consult his tackle log?

A. Yes sir. Of course, it is always supposed that he knows the deviation of his compass or whether his compass has any deviation.

Q. Now, if he has run from 11:19 to about 1:45 the next morning, that would be nearly three hours—two hours and twenty minutes, and did not pick up the Mary island light, what would be his duty?

A. What speed are you giving him?

Q. Assuming he was going over the ground at 7½ knots an hour?

A. Well, I have forgotten the distance from Tree Point to Black Rocks, but that would be easily ascertained by himself. I think it is in the neighborhood of 20 miles from Tree Point to Black Rocks; it would be just three times the speed of the ship.

Q. Well, if he did not pick it up at 1:45 or thereabouts, if he did not pick up the Mary island light, what would be his duty?

A. I would not say what would be his duty unless he knew he was clear of Black Rocks. If he was clear of that by his time and speed of the ship, then it was his duty to haul off to the eastward, if he had not opened the light at that time; that would be my opinion; that is what I would do.

Q. Well, take a suppositious case. Take a tug of this size and character and a barge of this tonnage and cargo, under the weather conditions that I have given you, making Tree Point at 11:19, passing Tree Point at 11:19, and not picking up the light at 1:45; the barge breaking adrift and going aground on the east shore of Mary island about midway between the north and south points of Mary island. Given these conditions, what would have been good seamanship under these conditions, prior to the barge breaking adrift?

A. I don't quite follow you.

Q. The idea is this: We have got a tug with a barge in tow, which left Tree Point at 11:19, and which got abreast of Mary island—the subsequent facts show she was abreast of Mary island, close to the shore, midway between the north and south points, at 1:45 or thereabouts, and he did not pick up the Mary island light up to that time. What would that indicate?

A. Well, it would indicate that he did not know where he was, or he would have to port his wheel and get away from that shore. At the same time the man might have thought he was up against Black Rock. He must know his time that he has made from Tree Point, and his compass. If he was not familiar with that, then he did not know what shore he has made. Under these conditions he might have got in there, you see.

Q. You mean on the north side of Duke island?

A. On the north side of Duke island. It all depends on the man himself. If he knows the deviation of the compass, and how far off this point he is, three or four or five miles, whatever that would be, then if he steers a course on this

chart, and knows the deviation of his compass, he would know whether he had to keep a little more to the right or to the left. That is the reason. The man could not tell what light he was making unless he knew what speed he was making.

Q. When we find that fact, that after leaving Tree Point at 11:19 p. m., that his tow broke adrift at 1:45 and went on the east shore of Mary island, about midway of the island, then we know that immediately prior to that he was on that shore.

A. Yes, we know, after the ship is there. It is pretty hard to get on that without the man knew exactly how he was steering.

Q. Now, assuming that under the weather conditions that I have stated, the master or officers on watch on the Commodore found himself close on the breakers of Mary island, with this tug with the barge in tow, 180 fathoms of hawser out, what would be proper and seamanlike maneuver?

A. He evidently knew he was on that shore because he ported his wheel hard aport. No doubt. As soon as he did that I think he ought to have notified the ship. I suppose he had a signal card aboard; I always had, when towing ships.

Q. What method of signal?

A. I would give him two blasts of the whistle; two short blasts, that was my signal. That is, two blasts to port her and a short blast hard aport.

Q. In other words, it was his duty to indicate to his tow that he was porting his wheel and that he wanted it to port her wheel?

A. Yes sir.

MR. STRATTON: I move to strike the question and answer. There is no allegation of any negligence of the failure of the tug to give signals or instructions to the barge.

Q. What other thing would he do in maneuvering out of that position, if anything?

A. Well, he might slow down.

MR. STRATTON: I object for the same reasons. The question calls for an answer that is not within the issues and for that reason it is incompetent, irrelevant and immaterial. I make all of these objections to the former question also, in support of my motion to strike.

Q. You say he should have slowed down?

A. Well, naturally, yes.

Q. For what purpose?

A. To ease the strain on the hawser when it would come up taut again.

Q. Now, if he had a towing machine, captain, an automatic towing machine on the tug, with the steam on, would that take up the slack, the bight made by the tug putting her wheel hard aport and relieve the strain?

A. I am not familiar with towing machines. It is supposed to take up the slack, but I am not familiar with them.

Q. You did not tow with towing machines on your tugs?

A. No.

CROSS-EXAMINATION:

Q. (MR. STRATTON): Then, captain, if there was a towing machine aboard the tug which was designed to, and which would take up all the slack when the tug put her helm hard aport, if she did put it hard aport, then there would not be any extra strain on the hawser, or the shackle or the chain of the barge, or the equipment of the barge?

MR. GORHAM: I object as not proper cross examination. The witness testified he did not know anything about a towing machine. Your objection went to his competency when I asked him the question. I do not know why you should continue that line of examination now. We object.

A. Well, it would be impossible to part that line or shackle—

Q. You can just answer the question. I move to strike the answer as not responsive; and ask to have the question answered yes or no. It is capable of being so answered.

A. I did not understand it so. What am I to answer?

Q. I say, if there was a towing machine on board the barge (tug) which would and did take up all the slack when the tug put her helm hard aport, if she did put it hard aport, then there would not be any extra strain, because the strain would be on the towing machine. Is not that so?

A. The line would be always keeping the same strain and there would be no reason why the shackle should part there any more than where she towed her three or four hundred miles.

Q. Unless there was some defect in the shackle which caused it to break at that particular time?

A. Well, that might be. I don't know anything about towing machines. But I understand from men that do, that they take up the slack, if there is steam on, and if there is not, they are just rigid.

Q. Have you towed on trips north from the international

boundary line between Canada and the United States, where you picked up Tree Point and the Mary island light?

A. Yes sir. Towed and been towed.

Q. [illegible] captain, did you do the towing?

A. [illegible] August, I think, 1904. I think it was that year.

Q. What tug?

A. The tug called the Mary C. Now owned by the American Tug Boat Company of Everett.

Q. What was her power?

A. She was a light powered boat. I don't know just her horsepower.

Q. Was she a seagoing tug?

A. She done fairly well on these trips.

Q. Would you call a tug that makes the inland passage a seagoing tug?

A. Oh, yes.

Q. What would you call, captain, a seagoing tug, as distinguished from one not seagoing?

A. Well, a tug that is capable of going to sea. This vessel is of light power, but fine, well modeled boat, and is well capable of going to sea.

Q. Have you any way of defining the size or power of vessels that would be properly qualified to go to sea?

A. No, I haven't.

Q. What were you towing on this trip that you mention?

A. I was towing a large barge.

Q. Was she loaded?

A. Yes, she was loaded.

Q. How many tons was she loaded with?

A. I think about 5,000 tons.

Q. What was the size of the barge?

A. The barge was, I think, about 400 feet long and nearly 50 feet beam.

Q. Where were you bound for?

A. Bound for Chatham straits, a place called Gypsum.

Q. Where did you start from?

A. From Seattle.

Q. Did you make just that one trip?

A. Two trips.

Q. These two trips are the extent of your towing over the course we have mentioned?

A. Yes sir.

Q. That was in 1904?

A. I think it was. It was the year of the Portland fair.

Q. That was 1905.

A. Then it was 1905.

Q. What time of the day on your first trip, or night, did you pick up Tree Point?

A. Picked up Tree Point in a foggy morning about 8 or 9 o'clock in the morning.

Q. So on that trip then, you passed Mary Island in broad daylight?

A. Yes.

Q On the second towing trip over that course, what tug did you have?

A. The same tug.

Q. You were master?

A. Yes.

Q. Same barge?

A. Same barge.

Q. Approximately the same load on the barge?

A. Yes, about the same.

Q. Bound for the same place?

A. Yes.

Q. And from the same place?

A. Yes.

Q. What time, on that trip, did you pass Tree Point?

A. I think about 10 o'clock at night.

Q. Was it a light, bright night?

A. It was bright when we passed Tree Point.

Q. Moon showing?

A. No moon.

Q. It was a bright night when you passed Mary island?

A. Clear dark night.

Q. What time of year was it when you made your first trip you mention, on that course?

A. Latter part of July.

Q. Second trip?

A. About the first of September.

Q. And the weather was good on both trips?

A. No, not so good on the last trip?

Q. Not so good on the last trip. How was it on the first trip?

A. The first voyage met a little head wind. The last trip it was late in the fall and the wind was southeast.

Q. Wind prevailing from the southeast?

A. Yes, an aft sea.

Q. So that the wind came from the southeast on your stern?

A. Yes sir.

Q. How was the sea on your second trip?

A. Smooth.

Q. What was the velocity of the wind on the second trip?

A. That time it reached 40 miles an hour.

Q. What do you call that, when it reaches 40 miles an hour? Do you call it a gale?

A. No, strong breeze.

Q. How far off Tree Point were you?

A. Going north?

Q. Going north, when you picked up Tree Point on the first trip?

A. It was foggy and I could not tell. I judged by the course I steered that I was about three miles off.

Q. What course did you take immediately after you passed Tree Point on the first trip?

A. I really forget, but I think about northwest by north.

Q. Northwest by what?

A. Northwest by north. I forget. I think so.

Q. Can you state at this time what the proper course would have been for you to take?

A. No, I could not.

Q. (MR. GORHAM): You mean with or without the chart?

A. Oh, with the chart, we always had the chart before us on the table.

MR. GORHAM: The only reason I mention this is because the record shows I submitted the chart to him.

MR. STRATTON: I am testing his knowledge.

MR. GORHAM: I would not want it to appear he could not do it with the chart. I am not objecting to your questions.

Q. (MR. STRATTON): Did you on your first trip with the tug, change your course at all, between Tree Point and Mary island?

A. Yes, I did.

Q. At what point did you change your course?

A. Right off Black Rocks. I found I was too close to the Mary island shore, and hauled off to the northward.

Q. Where is this Black Rock you have referred to? Point it out on the chart that Mr. Gorham has referred to.

A. Right there (showing).

Q. You changed your course when opposite Black Rock?

A. Not necessarily, if you are on a proper course, but at that time I did not have the deviations of this boat's compass at all until I got a sunny day on the way up, and made my own deviations from point to point. As a general rule we have these ships swung before we go up there. Max Kuner generally does.

Q. So as to find out the deviation?

A. Yes.

Q. Then the course, captain, that a tug with a tow should pursue in going from Tree Point north past Mary island, would depend upon the tug's location in the channel, would it not?

A. Yes sir.

Q. And you do not know and are not able to state whether or not the tug Commodore, on the night of the accident, took the proper course or not?

A. No sir. I would not have any means of knowing. The course is a general northwest direction, just which way, west or north of that, I do not remember now. It is a long time ago since that. But the general course is a northwest direction.

Q. You do not know, captain, whether or not under the conditions as they existed at and before the time this barge stranded on Mary island, the master of that tug did exactly what you would have done under the same circumstances?

A. No, I don't think he did. I think I would have done differently.

Q. You think you would have done differently. Now what would you have done differently? First, do you know what the captain of the tug Commodore did?

A. No, I do not. I heard he put his wheel hard aport. Mr. Gorham, I think, said so.

Q. Well, would you not have put your wheel hard aport?

A. No, I don't think I would.

Q. What would you have done?

A. I would have ported the wheel and notified the ship to do the same with his wheel.

Q. But, if you had a towing machine aboard that tug that took up the strain, what good would it have done to notify the barge to put her wheel hard aport?

A. Naturally to follow the tug out of that danger that

Q. Would not the barge follow the tug?

A. She ought to, but if you are going to change the course suddenly and at a rounding point, then you notify. It is the custom of tug boat people to have a card printed with signals of all kinds on, what so many whistles mean. I was coming in by Cape Flattery and was heading right on some big rocks and I ported my wheel and I notified the boat to do the same, and we came in safely, both missed the rocks.

Q. If the helm of the tug was put hard aport, when the captain found that he was near Mary island, how many points would that have swung the tug to the east?

A. That all depends on how long he kept it hard aport. You would come right around in a circle.

Q. Right around in a circle?

A. Yes, sir, sure.

Q. Assuming that the tug was going seven and a half knots over the ground at the time the tug is said to have put her helm hard aport, how many feet would she have gone before she was at right angles to her former course?

A. I could not swear to that, how far she would go.

Q. What is your best judgment?

A. It would take her, to swing out 90 degrees, a quarter of a circle, it would take her probably five minutes; if she was steering northwest, which she probably was, in that neighborhood, before she would come out southeast, it would take her five minutes.

Q. That would be going in the opposite direction, that would be 180 degrees.

A. She was heading—

Q. You said it would take five minutes to get around 180 degrees; how long would it take to get around 90 degrees, captain?

A. Probably half that time.

Q. Perhaps two and a half minutes?

A. Yes, maybe three minutes. The tug will answer her wheel a great deal quicker than a great big ship.

Q. Assuming, captain, that the tug, instead of putting her helm hard aport, had simply changed her course two points to the east, would that have put any additional strain upon the hawser or tow line or shackle, even without a towing machine?

A. Very little, if any.

Q. Very little, if any. Captain, in running from Tree Point past Mary island, where the tug was bound for Ketchikan, without anything to make any stops for, and the night was dark and the wind was blowing 20 or 30 miles an hour, and it was snowing and a fairly heavy sea; with the wind blowing from the southeast; so that the light on Mary island could not be picked up, what would you say with reference to a tug getting off its course—would it be apt to get off its course?

A. No, I don't think so. The wind right aft, very little current at any time in there, and the wind would more than stand off that current, and the vessel would have to be slowed down in order to get down to five and a half or seven and a half, and she going good, full speed, with that wind after her, without making nine or ten miles an hour.

Q. Explain that answer more fully. I don't get that quite.

A. You wanted to know whether a vessel could get out of her position, is not that the question?

Q. Yes.

A. The vessel could get out of her position in a great many ways. Might be bad steering of the quartermaster or whoever had the wheel, which might let her get off her course.

Q. That is a common occurrence?

A. Very often at sea.

Q. Happened on your tugs, has it not?

A. Many times.

Q. You do not consider this is negligence when done?

A. I generally watch them. If they were in bad conditions, I generally watch them close. But sailors are careless and quartermasters are careless. That is the only way the vessel could possibly get off her course there. If she was properly steered, wherever he took his departure from Tree Point. I generally lay out to Dundas island, Dundas Point, and shape a course from there to give me Tree Point.

Q. Will you point out on the chart Dundas island?

A. It is further down here; it is off the chart.

Q. On a dark night and when the weather is thick with snow and the wind blowing, is it not pretty common, and not unusual at all, for a vessel to get off her course?

A. Oh, they get off their courses frequently, yes.

Q. They do it when there is no negligence on anybody's part; when everybody has performed his duty, and when the master and crew were using good seamanship?

A. No, I could not say that, because if you are where the tide conditions are bad, you are liable to if there is a head wind, but with a fair wind it is not customary or usual for a vessel to go off the course if steered well.

Q. Not get off the course at all?

A. No.

Q. Not at all?

A. Off a half a point or quarter of a point, may be. There is nothing to make them go off their course.

Q. Do you know how close it is usual and customary for tugs to run to the east shore of Mary island, going north?

A. Generally a mile and a half off.

Q. What is the usual and customary distance for a tug to be going north with a tow, when she passes Tree Point. How far from Tree Point?

A. I myself leave it three miles off, if possible.

Q. Regardless of the position of the vessel when she is south of there?

A. Yes sir.

Q. Now, assuming that you are three miles off Tree Point, what course would you then steer? You may look at the chart, if you wish to, captain?

A. Well, I cannot remember the course I steered. The only thing would be to put the rulers on the chart.

Q. Take the rulers there, and see what would be the proper course when you are three miles off.

(Witness does so.)

Q. We will mark the point you have indicated as three miles off Tree Point A for the purpose of identification. Now you have indicated a point a mile and a half off Black Rocks, which I will mark B.

A. The course is northwest one-half north, magnetic.

Q. How far would you run on that course, up to what point, I mean, on this line you have drawn from A to B?

A. 17 miles to Black Rock and then you ought to open Mary island light.

Q. When you are at point B you should open Mary island light?

A. Yes, and if you don't open it then, you could run five miles further on this course and haul off here.

Q. Show where the five mile point is.

(Witness does so.)

At the point which I have marked C you would change your course?

A. If the light was not open.

Q. If you had not seen the light before, you would change your course?

A. Haul off to the north.

Q. The distance between points B and C is five miles?

A. Yes sir.

Q. Now to what course would you change?

A. A couple of points.

Q. A couple of points to the north.

A. Until I opened the light. If it was a night that you could not open the light at that distance then it is time to turn around and put her head to the wind and hold on.

Q. What would you do, anchor?

A. No, just hold her. You cannot hurt anything on the course you came from. That is very frequently done.

Q. What is the distance, captain, between points A and C?

A. Twenty-two miles.

Q. That is twenty-two nautical miles?

A. Yes sir.

Q. The point A here, as I understand you to say, is three miles from Tree Point?

A. Yes.

Q. And Point B?

A. A mile off from Black Rock.

Q. And point C would take you how far from Mary Island?

A. It would take you just a mile and a half. Of course in this case it is always providing his compass was magnetic.

Q. How far, captain, from Tree Point is it safe, or how close to Tree Point is it safe to take a tug and tow?

A. You can go safely half a mile off; but it looks desperate, you can see the land.

Q. But it is perfectly safe?

A. It is perfectly safe.

Q. Assuming that the Commodore was half a mile off Tree Point, what would be the proper course to take in going past Mary Island?

A. Well, I would have to run the rulers over that again.

Q. Will you do that?

A. I am assuming all the time that this scale on this chart—but there is no scale on the chart.

Q. To give it a safe clearance of Mary Island.

(Witness indicates point marked D, as half mile off Tree Point.)

I will simplify that. What would be the proper course if he had not opened up the light on Mary Island, assuming the tug half a mile off Tree Point. What would be the proper course to pursue from point D up past Mary island, to properly clear, if the captain of the tug did not or could not pick up the light on Mary Island?

A. That is exactly northwest a quarter west.

MR. GORHAM: He must have a course long before he is supposed to pick up the light.

MR. STRATTON: That is all in the same question.

A. If he steered northwest a quarter west, half a mile off here, off Tree Point, then northwest quarter west will take him a mile and a half off the island.

Q. State that again.

A. If he is only half a mile off Tree Point and he steers northwest quarter west, providing his compass is right, it will take him a mile clear of Mary Island.

Q. What do you mean by saying if his compass is right?

A. Providing it is magnetic; this is a magnetic course. But if he has got a heavy deviation either way, of course that changes the matter; and the longer you run the more it changes.

Q. Now captain, if the master of the tug did not pick up the light on Mary island, on the course you have just mentioned, would he make a change of course, and if so, at what point?

A. If he is a proper distance off here?

Q. Assume he is half a mile.

A. If he is half a mile and did not open the light when he had run twenty miles, it is his duty to haul to the northward.

Q. Let us measure up twenty miles from point D.

(Witness makes measurement on chart from D to point marked E).

Q. Now you have connected the points D and E with a pencil line.

A. He would be up to Mary Island; he would be right abreast of the light.

Q. He would not change his course until he had gone twenty miles, and that would—

A. According to this chart he could not run twenty miles; if this nautical scale here is the scale of the chart, which I do not think it is, according to my judgment.

Q. Then because you haven't a scale on this chart 8075 you may be all off on this point?

A. Yes, sir.

Q. On the distances.

A. On distances I might be.

Q. But not directions.

A. Not direction.

Q. (Mr. Gorham) Figure that again, from A to B, and see if that is 17 miles. That may be an error.

A. (Witness measures on chart) It is thirteen and three fourths miles.

Q. (Mr. Stratton) From point A to point B is thirteen and three fourth miles.

A. Yes, sir.

Q. Now point G which has just been marked on the chart instead of point C, is the point at which the vessel would change her course if she were going from point A to pass Mary Island and did not pick up the light?

A. Yes.

Q. And point A is three miles off Tree Point?

A. Yes sir.

Q. And to what would you change your course at point G if you did not pick up the light?

A. I would haul off to north north west.

Q. The course from A to G is what course?

A. North west quarter north, magnetic.

Q. The course from A to G is northwest quarter north magnetic.

A. Yes, he should open the light really before that; but that would be really a safe distance to run to G.

Q. Now if he had not opened up the light at G....if you had not opened up the light at G, what would you do?

A. I would haul off to the north a couple of points, if you are in here.

Q. How far, after you had pulled up a couple of points at G would you run?

A. I would run a distance so I would be opposite Mare Island.

Q. Then what would you do?

A. If I did not open the light I would heave to.

Q. Take exactly the opposite course?

A. Yes.

MR. GORHAM: He would run to a point abreast of C on his changed course?

MR. STRATTON: Yes, he has changed two points.

MR. GORHAM: To a point abreast of C, that was your question.

Q. You say then when abreast of point C you would heave to?

A. Heave to if I did not raise the light; when I run that distance I would heave to.

Q. And after you heaved to what would you do?

A. Put her ahead southeast.

Q. What rate of speed would you go southeast?

A. Just as slow as I could go to hold the ship.

Q. How long would you continue to do that?

A. I would continue to do that for one or two hours, whatever time that would be, depend on the strength of the wind; then we would swing back on the same course again.

Q. You would oscillate between these two points until when?

A. Until daylight or until I could get either the light or the trumpet. You get that trumpet probably a mile and a half or two miles this side of the opening of the light. Probably be about half way between Black Rock and here, that

you would get the trumpet, if the wind was not too strong for you; if it is you are not liable to get it.

MR. GORHAM: Let the record show where he has expressed the distance in nautical miles, it is the nautical mile on the scale shown on the map as nautical mile.

MR. STRATTON: Yes.

Q. You never made a trip on a stormy night passing Tree Point going to Mary Island, did you?

A. Not on a stormy night, on a thick night; I have made it with passenger boat but not tows.

Q. Would the fact that this tug had the Bangor in tow under the conditions that have been already stated to you, tend to put the tug off the course?

A. Would the fact of her towing a vessel?

Q. Yes.

A. I don't think so. If there was much current the slower a vessel goes the more drift she makes. It all depends on the man's knowledge of the current in that case.

Q. Do you know what the current was on the night in question?

A. No, sir.

Q. Don't know whether there was a current there that would cause the tug and tow to set in towards Mary Island or not?

A. I would not know without getting an Alaska tide book to show how the tides were at that point. I have no means of knowing. There is not very much tide at any time between Tree Point and Mary Island, because as soon as the tide comes down from Ketchikan down to Mary Island it spreads out and loses its speed.

Q. But with the tide and the wind that was prevailing that night, taken together, they might tend to set the vessel one way or the other?

MR. GORHAM: I object to that, because it is not a proper hypothesis. The evidence of the master shows that the tide was ebbing and the wind was fair; there was no current by reason of these conditions.

MR. STRATTON: We are examining this witness.

Q. I say that so far as you know, the condition of the tide and the wind that night, might tend to set the vessel one way or the other. You do not know.

A. No, I don't know.

Q. And the vessel might have been set one way or the

other on account of the tide and the winds so far as you know?

A. Yes.

Q. Without any negligence on the part of the master at all.

A. Sure.

Q. Does not a master who has been captain of a tug for a considerable length of time, months and months, know pretty well the speed of the tug, without putting out the log in the water?

A. Well, under ordinary conditions, where he is running over it, I guess he would. The weight of his tow and the proper steering of his tow, has a great deal to do with retarding or helping the speed of the tug.

Q. Suppose that the barge is following in the wake of the tug, he knows pretty well, almost certainly the speed of his tug?

A. No, I don't think he can, if he is not used to towing vessels.

Q. I mean if he is accustomed to towing vessels, and especially in these waters?

A. He ought to know about the speed of his vessel, but it is a guess anyway without the log.

Q. But a pretty certain guess, captain?

A. No, I don't think so. I don't know whether he had a log or not. I was only talking about the log in regard to his approaching a four point bearing on the light. He might have had a log or might not; I don't know.

Q. Do you know whether it is usual or customary for tow boats to use the log when they are going through these waters up there?

A. Well, I don't know what the custom is. I always use one. I do not know whether it is customary or not. I don't think it is here in Puget Sound.

Q. Well, what do you know about it with reference to the waters up there around Mary Island?

A. I always use a log.

Q. You do not know what the custom is?

A. I use a log because the Insurance people require it.

Q. On tug boats?

A. Yes, they say so. And of course it is a good deal of satisfaction to a man himself in a fog. On big ships leaving Victoria, or leaving a point of departure, when it is foggy I have my log over.

Q. Now assuming that this tug Commodore passed Trial Point at 11:19 p. m., under the conditions of the weather already stated to you, on a course north west one half west—

A. I would have to know the deviations of the man's compass.

Q. We can call that magnetic, and we can correct it later on if necessary. With a magnetic course going at the rate of about seven and one half knots per hour over the ground, and assuming that the Commodore was a half a mile off Tree Point when she passed it, how long a time would you run before you changed your course?

A. I would run about two hours and forty minutes.

Q. Now will you mark on the line D-E where you would be at the end of that two hours and forty minutes?

A. It is right off Mary Island light.

Q. Then, if you were steering on the course D-E, and you say you would run two hours and forty minutes, running seven and a half knots an hour, you would change the course at the point E?

A. Yes, if I didn't open the light by that time. If it was light and you could see the light, you would open it before that time.

Q. And you would change your course how many points and in which direction?

A. Change it about two points, and if I did not get the light in a few minutes, I would heave to.

Q. (Mr. Gorham) Two points which way?

A. To the north. I would assume then I was in behind the light and had not run that speed, without we were figuring on the log.

Q. (Mr. Stratton) Captain, if you were running a tug with a tow, and found that you were close in to an island, and that you would run into it if you proceeded on that course, what would you do?

A. Well, in the first place I would have to be certain of the shore I had made, in my mind; there might be such a thing that you would get entirely clear of Mary Island.

Q. Assuming this was Mary Island, and you knew it was Mary Island, what would you do?

A. I would port the wheel. Of course you have to haul in to the northward in that case and clear Mary Island.

Q. You would put it hard aport.

A. No, I don't think I would.

Q. How many points?

A. I would haul her off three or four points, because that naturally would clear the island, then also notify the ship that I was doing.

RE-DIRECT EXAMINATION:

Q. (MR. GORHAM) You would figure on the kind of a

night it was and the stormier the weather the more vigilant you would be?

A. Sure, certainly.

Q. You would also consult your tide tables to see which way the tide was setting?

A. You would consult them and see whether you were going with or against the tide.

Q. And if you had reason to believe the wind and tide would set you over, you would try to make allowance for the setting, would you not?

A. Yes, if you knew there was a set.

Q. That is what I mean.

A. You have to be pretty well used to the country before you get used to that set at certain stages of the tide. Of course if a man has an idea he is setting that way, he would haul off a point or half a point or such matter.

(Witness excused).

Seattle, Washington, October 27, 1917.

Proctors for the libelant and claimant being present, it was agreed that the stipulation entered into on page 1 of these depositions apply to the witness Capt. Clark W. Sprague, now present, on behalf of libellant.

CAPT. CLARK W. SPRAGUE, a witness on behalf of the libelant, called pursuant to the foregoing stipulation, being duly sworn, testified as follows:

Q. (Mr. Gorham) What is your name, captain?

A. Clark W. Sprague.

Q. What is your business or profession?

A. At present time piloting.

Q. What vessel or line?

A. Nippon Yusen Kaisha Line, regularly and as many others as I can get and my time permits.

Q. Deep sea vessels?

A. Yes, all of them.

Q. How long have you acted as such pilot?

A. Regularly for eleven years.

Q. In what waters?

A. Puget Sound and British Columbia.

Q. How long have you followed the sea?

A. Thirty eight years.

Q. Have you master's papers?

A. Yes, sir.

Q. What tonnage?

A. Unlimited in the Pacific.

Q. When did you get your first papers, how long have you had them?

A. My first papers came to me for river work, along about 1880 or 1881.

Q. And when did you get unlimited ocean papers, about when, I mean?

A. About eighteen years ago.

Q. Have you ever done any towing?

A. Yes sir.

Q. As master of tug boats?

A. Yes sir.

Q. In what waters?

A. Puget Sound, British Columbia and on the coast, and a little in Alaska.

Q. As master?

A. Yes sir.

Q. How many years, approximately?

A. Well, constantly for thirteen years.

Q. What character of tugs?

A. Wood and iron.

Q. What capacity?

A. Ocean towing boats.

Q. And what character of tows did you tow during that time?

A. Ocean craft, barges, logs and scows.

Q. Where is your residence?

A. Seattle, 1215 Seventh west.

Q. How long have you lived on Puget Sound?

A. Well, my home has been here regularly for 18 years.

Q. Are you familiar with the British Tug Commodore?

A. Why, only from observation in passing her; never been aboard of her.

Q. She is an ocean going tug?

A. I judge so from her line of work.

Q. Do you know her tonnage?

A. No sir, I do not.

MR. GORHAM: Her tonnage is 319 (*sic*) gross tons, Mr. Stratton.

MR. STRATTON: I do not know, but if you say that is the fact I am willing to admit it.

Q. Do you know the American Barge Bangor?

A. I know that there is such a barge; I knew there was such a schooner.

Q. Do you remember the Bangor before she was converted into a barge?

A. Only that there was such a vessel.

Q. Her gross tonnage is 511. Now assuming, capta that we have the tug Commodore towing the barge Ban from the International Boundary line between British C umbia and the state of Washington, north on a voyage Anchorage, via Ketchikan; the barge laden with cargo approximately a thousand tons; with a tow line of 1 inch steel hawser, one end made fast to a towing mach and the other end by means of a 1¾ths iron shackle ma fast to the anchor chain of the barge; time, 2 a. m. Mar 26th, 1917; location Revillagigedo channel, between Cape F or Tree Point and the Mary Island light. Are you famili with that?

A. Well, only in a vague way. I know there is such channel and there are such aids established there.

Q. Fox light being 25—Tree Point light being 25 or miles, approximately from Mary Island light. Weather co ditions, wind east southeast, velocity 30 miles an hour a upwards, occasional snow squalls; tide ebbing with little no current on account of the direction and velocity of t wind. The tug, with barge in tow properly following, pr ceeding over the ground at about seven and one half kn per hour. And the tug finding herself out of her cours almost in the breakers off the east shore of Mary Isla puts her helm hard over, thereby suddenly changing h course ninety degrees. With these conditions given, sta from your own experience what, in your opinion would the effect upon the connections between the tug and barg

A. Very much—

MR. STRATTON: I object on the ground that the w ness has not shown himself qualified to testify, and there no evidence that he is familiar with these waters. It is i competent, irrelevant and immaterial.

A. The sudden change of power applied in the towi would necessarily increase the strain on the device conne ing the tug boat and tow, very decidedly for the reason th the following vessel ceases to follow or contribute to t direction or speed that had been accomplished prior to th sudden change.

Q. What would be, under these conditions as given, wh would be the degree of strain, so far as it affected the dev between the tug and tow?

MR. STRATTON: I object. The witness has not sho himself competent to answer that question.

A. I do not know that that could be given in the proportion of increased load or increased resistance. I know that it would occur, but in what proportion I could not say.

Q. And that strain would increase, as you say, under such weather conditions, with tug and tow, as given, in any waters?

A. Absolutely.

Q. If a tug had automatic towing gear, and the steam was on that gear at the time the sudden change of course was made, what effect would that have?

MR. STRATTON: The witness has not shown that he knows about automatic towing gear or this particular one.

Q. I will withdraw that question temporarily, and ask the captain if he has ever commanded tugs with steam towing gear?

A. No sir, that has been applied since I have been out of the work. I knew of its use long prior to its application on tugboats, from observation of Standard Oil ships towing on the coast.

Q. What is the effect of that steam towing gear? on the hawser?

A. It has a cushion; it has a governor that will take in and give way, as the strain decreases or increases.

Q. So that if the steam is on the gear the strain is a constant strain?

A. Yes. If it is checked it is rigid. But if in operation it gives and takes all the time, as the pressure requires, the strain.

Q. But if the gear is open and you make a sudden change that causes slack in your line, it takes up that slack?

A. Yes, sir.

Q. With the result that the strain on the tow is an even strain?

A. Yes, uniform.

Q. (Mr. Stratton). Then, if the Commodore at the time it put its helm hard over so as to change its course 90 degrees, had on board and working at that time and in operation, a towing machine, there would be no extra strain on the hawser or appliances connecting the tug with the barge?

A. Not if the towing device contracted or increased the length as required, the pressure should have been uniform.

Q. If the towing machine was in operation and working order it would pay it out.

A. Yes, it would pay it out or take it in, as the strain called for it.

Q. So that if that towing machine was in working orde or was working, this change of 90 degrees would not hav made any perceptible additional strain on the appliance connecting the barge, would it?

A. Not if it worked right, it should contribute to elimi nate the strain between the attachment on both ends.

Q. Captain, if, under the circumstances which have bee stated to you by Mr. Gorham, you had been the captain o the tug, and had found that you were head-on to the islan or running into the island, what would you have done?

A. I would have put my helm hard aport or starboard as the land fall required, and given the established signal t the vessel astern of me to take warning of surprise and a accordingly; but I would put my helm over immediately.

Q. And the fact that you gave the signal would not hav prevented the barge from going ashore, would it?

A. I don't know that it would. It would have allowe the following vessel to contribute to the strain or to th change of direction of the tug boat, instead of being sharp or suddenly applied; it would have come easy because th barge would have veered into the track of the pulling power

Q. Yes, but if there was no extra strain?

A. There must have been strain somewhere, whether th curve took it up or the towing device took it up.

Q. I assume that the towing machine took up the strain There was no shock then, I say, and the blowing of th whistle or giving a signal, would have had no effect on th tow?

A. Yes, it would. Because it would have guided th following vessel to contribute to my needs.

Q. Well, what would have been that contribution on th part of the barge?

A. She would have veered on her course before she can in close proximity to danger; he would have followed throug the same imaginary trench the tug boat had made.

Q. If she was so close to the rocks, and not having mo tive power herself, she would have gone ahead no matte what steam blasts or signal had been given?

A. The tug boat was that much closer to the obstruction the length of the towing device, and he could have followe the same imaginary trench made by the tug, and have helpe keep clear of the obstruction.

Q. Well, you do not know whether—

A. Yes, I do know.

Q. That the Bangor would have followed it and avoide this damage?

A. Quite evident that she would if she followed the ack of the tug boat.

Q. Let me finish my question.—If any signal had been ven by the tug boat?

A. I cannot declare it would have saved the vessel, but I declare it would have contributed, it would have been contributory feature for self preservation, the two work- g in unison.

Q. But when the hawser broke, or rather when the ackle broke, the barge had lost all connection with the tug dn't it?

A. At once, when they broke apart.

Q. Well then, how could the barge have followed in the ke of the tug?

A. If she had had prior warning, had recognized it en he got it, and put his helm hard aport, he would have ered in the general direction of the tug boat.

Q. But even if the barge had done that, you cannot say t the barge would not have gone on the rocks, just the me?

A. I cannot say she would not, however, I do say she uld have had a tendency to follow the track of the tug at and the tug boat met with no mishap.

Q. You do not know whether she would not have met th a mishap?

A. I don't know that she would have escaped, but I do ow she would have aided towards the escape.

Q. By just the amount of headway that she might have ined before she struck?

A. Well, she was as close to the rocks when she was tern of the tug boat by the connecting tow, as she was er on, and if she could have followed the trend of the tug at herself, keeping on the track of the tug boat, she would ve more than likely escaped.

Q. Well, suppose the tug, at the time it made this 90 gree turn that Mr. Gorham has mentioned, was going out four miles an hour, the barge would be going the same e, and the shackle broke, would there be enough headway the part of the barge to give it steerageway, even if the n of the barge had been put hard aport?

A. The ship has so great a momentum that she would ve to some extent steering power.

Q. I ask you, if going at the rate of four miles an hour, uld that give her sufficient speed to give her steering wer?

A. To some extent.

Q. How far would she run?

A. As long as she carried this momentum. How fre running vessel she is I don't know.

Q. How far would that be?

A. I cannot say.

Q. Have you any idea?

A. Only as a guess.

Q. Would she run 100 feet or 200 feet?

A. Yes, probably run 1500 or 2,000 feet.

Q. Before she would stop?

A. She would not stop; there is nothing to stop her, w the wind following, unless she hit the rocks.

Q. She would not continue to go indefinitely through water because she had a four mile momentum?

A. She would go as long as she carried any moment

Q. How long would she run, in your opinion, I mean have any steerageway, captain?

A. Well, she should show response to her rudder long as she moved through the water. If she had this bre o' wind after her that they state, as long as that wind w other than ahead or directly abeam, she ought to be go through the water, either with tug boat power or with wind.

Q. Even enough to have steerageway?

A. Yes, it would be a slower response, but she wo respond.

Q. If that were true, then so long as a vessel ha wind behind her of thirty miles, she can steer herself that what you mean to say?

A. A rather erratic track, but she will obey her rud

Q. You think a barge, where a wind is behind of thi miles an hour, and she is running towards an island a m o' more in length, and where she is only, say a thousand f from that island, could avoid hitting that island?

A. I don't know that I could say that, but I would s sle would escape hitting on the course that she origin was approaching that land.

Q. You think there would be enough steerageway that she would not strike in a direct line, on the line s was going?

A. No, sir.

Q. How far she could be taken from that direct l you could not say?

A. I could not say because the resistance of the ste ing device of one vessel is vastly different than anoth But as long as she carries momentum, she must recog some guidance from her steering device.

Q. And the less the speed the less she would respond to her rudder?

A. Yes, sir.

REDIRECT EXAMINATION:

Q. (Mr. Gorham) I do not know that I gave you in the hypothesis, the length of the hawser?

A. That would only bring that—what would ordinarily be used in these waters, what I have used elsewhere and a very few times in these waters, 150 to 200 fathoms.

Q. The length of this hawser was 180 fathoms. Now, given that length of hawser, and the other conditions as I have expressed them, would that make any difference in your answers?

A. No sir. I had that in mind.

Q. (Mr. Stratton) I want to ask you a further question. Have you towed any barge through the waters where this barge was wrecked?

A. Yes sir.

Q. What tug were you aboard, captain?

A. In 1897 I went north in the tug Sea Lion. Two scows, no steering device.

Q. How many trips did you make?

A. I made one trip at that time, and afterwards one trip, in 1898 in the summer or fall following a steam schooner.

Q. You were captain of which?

A. I was on the vessel being towed in these same waters.

Q. Those were the only times you have been through these waters?

A. As master on the follower. I have been as a passenger on steamships several times through the waters.

Q. And one time you were master of a tug that was towing and made the trip.

A. Yes sir.

Q. Do you know what time of the day or night you passed Tree Point?

A. It was along in the night we got into Mary Island Custom House, just at break of day the following morning.

Q. Clear night?

A. Fairly clear; winter time, good breeze, but no rain or snow.

Q. Do you know how far it is from Tree Point to Mary Island?

A. I should say somewhere between 25 and 30 miles, offhand. It is a pretty long stretch crossing the channel.

(Witness excused.)

(PAGE 1 OF CLAIMANT'S DEPOSITIONS)

United States District Court for the District of Alaska.

First Division.

A. W. MYLROIE,

Libelant,

vs.

BRITISH TUG "COMMODORE," etc.,

Respondent, No. 295. K. A.

BRITISH COLUMBIA MILLS, TUG & BARGE CO., a corporation,

Claimant.

BE IT REMEMBERED That, on this 27th day of October, 1917, before me, the undersigned, A. C. Bowman, a Commissioner of the United States District Court for the Western District of Washington, residing at Seattle, in said District, with office at room 536 Central Building, in said City, personally appeared Mr. W. B. Stratton, of Farrell, Kane & Stratton, Proctors for Claimant, and W. H. Gorham, Proctor for libelant.

Thereupon said Proctors stipulated and agreed to take the deposition of STANLEY GRIFFITHS, a witness on behalf of the Claimant, before me; waiving notice of taking and signature of witness, to same, and agreeing that said deposition be used on the trial of said cause.

STANLEY GRIFFITHS, a witness called on behalf of the Claimant, pursuant to the foregoing stipulation, being duly sworn, testified as follows:

Q. (Mr. Stratton). What is your business?
A. Shipping.
Q. How long have you been in the shipping business?
A. Since the spring of 1909, directly connected with it, indirectly, a number of years previous to that.
Q. The name of your concern is what?
A. Coastwise Steamship & Barge company.
Q. Are you the owner of barges?
A. We are.
Q. Name some of the barges you own?
A. Henry Villard, St. David, Louisiana, Gen. Fairchild, Baracuda, Pioneer 10, Griff.
Q. Do you charter these barges out?
A. Yes.

Q. Did you prior to last March?

A. Yes.

Q. Do you charter tugs to tow the barges, at times?

A. We charter tugs from other people.

Q. And were you in that business prior to last March?

A. Yes, since 1906.

Q. How much are you acquainted with the barge Bangor?

A. We owned her from December 1910 to the time she was sold to Mylroie in 1915.

Q. You are familiar with the size and tonnage of that barge are you?

A. I am.

Q. How do the barges that you have already mentioned compare in size and carrying capacity and tonnage of the Bangor?

A. They vary in size.

Q. Some smaller?

A. Nothing smaller, except the Independent, which is a small scow.

Q. From your experience in operating your barges, and in chartering them to others, and in having them towed by tugs, are you familiar with the value of the use of a barge of the size and character of the Bangor last March?

A. Reasonably so, yes, sir.

Q. Is it customary, when a barge is being towed loaded, in this neighborhood, for the barge to furnish its own captain and crew?

A. Yes sir.

Q. What would be the crew and officers customary for the barge Bangor?

A. Usually have a crew of six men.

Q. What would be the reasonable value of the use of the barge Bangor, last March, with a crew, on trips from here to Anchorage, Alaska?

MR. GORHAM: I object as immaterial and incompetent.

A. That is a difficult question to answer. I perhaps could best answer by saying the rates we receive for the charter of barges—I think the highest rate we ever received was for the barge America, at a hundred dollars a day, for the bare barge within the last month. We offered the Louisiana or the Gen. Fairchild to the underwriters at $75 a day, for the bare barge and master.

MR. GORHAM: I move to strike the answer as not responsive to the question.

Q. Do you consider that a fair compensation for the barge and master?

MR. GORHAM: I object as incompetent.

A. Yes, that is a reasonable rental rate; better than the average.

Q. How does the size of the Louisiana or Gen. Fairchild compare with the size of the Bangor?

A. About double; a little better than double in size.

Q. Were you familiar last March, from your experience, with the wages of master and crew of barges the size of the Bangor and larger?

A. I am.

Q. From your experience and information then, what would you say would be a fair and reasonable compensation per day for the use of the barge Bangor, with her crew, last March?

MR. GORHAM: I object on the ground of incompetency.

A. From my experience I would say that a return of thirty five dollars a day would be a good one on the barge, and add about fifteen dollars a day running expenses, would make her worth about fifty dollars a day.

MR. GORHAM: I move to strike the answer as not responsive.

Q. You say that your firm was owner of the Bangor from 1910 to 1915?

A. From 1910 until sold to Mylroie, I believe it was 1915.

Q. From whom did you buy the barge?

A. She was purchased—

Q. That is immaterial. You bought her after she was wrecked on Race Rocks?

A. We bought her from the underwriters after she was wrecked on Race Rocks. I do not remember whether from the Underwriters or from Billings.

Q. You put some repairs on her and fitted her up as a barge?

A. Yes, sir.

Q. Did you have any pictures taken at that time of the barge?

A. I took some pictures of her myself while lying out north of the Heffernan dry dock.

Q. And the Commissioner subpoenaed you to bring those pictures?

A. Yes sir.

Q. Have you got them?

A. Yes sir.

Q. Just explain to the Court these pictures. Refer to them in any way to designate them.

A. The first picture, marked in red ink "Bangor," shows the vessel as she was towed in a waterlogged condition from Victoria to Winslow.

Q. After she was wrecked on Race Rocks?

A. After she was ashore on Race Rocks. The picture immediately below that shows the vessel as she lay aground off Hall Brothers Shipyard at Winslow.

Q. Immediately after she was taken from Race Rocks?

A. Immediately after she was taken from Race Rocks. The picture to the right of the first one mentioned, was taken some time during 1915, and shows the barge very much in her present condition. The balance of the pictures, with the exception of the last one, in the lower right hand corner, and on the back of the sheet, are various views while in the Heffernan dry dock while being repaired. The picture in the lower right hand corner is the picture of the barge as she was before being sold to Mylroie.

Q. Take the one in the upper right hand corner of the page on which one is marked "Bangor" the first one you mentioned, that represents what?

A. It represents a portion of her bottom while she was in dry dock before the repairs had been made.

Q. Has the Bangor, since that time, to your knowledge, been on the rocks or in any way damaged? If so, state when and where?

MR. GORHAM: I object on the ground of incompetency.

A. During sometime in 1911 this barge was loading ore at Brittania Beach, British Columbia, and was allowed by the master to take the ground forward with practically a full load of ore in her.

Q. (Mr. Gorham) Are you stating this of your own knowledge?

A. Yes.

Q. Were you there?

A. Immediately after the accident. Allowed to take the ground with a full load of ore in her, and strained her so that her seams opened up and she sank at the dock. She was raised and brought down to dry dock and recorked; put on a dry dock at Vancouver.

Q. (Mr. Stratton). When was that?

A. Sometime in 1911.

Q. What position do you hold with your concern?

A. I am secretary.

Q. And do you have personal charge or personal cognizance of the chartering of your barges to other people and of the chartering of the tugs to tow your barges?

A. I do.

Q. Make the contracts and look after that branch of the business?

A. I do.

Q. About how many contracts, in which you charter your barges to other people have you made, at any time within say five years prior to last March?

MR. GORHAM: I object as incompetent, irrelevant and immaterial.

A. Probably forty or fifty of them.

CROSS EXAMINATION:

Q. (Mr. Gorham). You have not followed the sea, have you?

A. No.

Q. (Mr. Stratton) Your office is in Seattle?

A. Yes sir.

Q. (Mr. Gorham). You speak of an occasion when the barge, Bangor, loaded with ore, took ground in the waters of British Columbia. Was that at Granby?

A. No, that was at Brittania Beach, about forty miles above Vancouver.

Q. Loading there at the old bunkers?

A. Loading at the bunkers of the Brittania Mining & Smelting company.

Q. After she was raised and brought down and recorked—what year was that?

A. Sometime in 1911.

Q. After she was raised and brought down and corked did you continue to use her as an ore barge?

A. We did.

Q. For how long?

A. She was probably used as an ore barge for two years thereafter.

Q. During that time did you find that her corking had been done in good shape and that she did not need the use of pumps?

A. Our experience is that all wooden barges need the use of pumps.

Q. That is the average use of pumps, but after the reorking, you found no difficulty in keeping her afloat?
A. No, none whatever.
Q. She was in as good condition as she was before?
A. Reasonably so, yes sir.
Q. Now you say you have personal knowledge of this grounding at Brittania Beach?
A. Yes sir.
Q. How soon after she grounded were you there?
A. The second day.
Q. Did you see the rise and fall of the tide?
A. Yes, to a certain extent.
Q. What character of bottom was she resting in as she lay aground there?
A. I could not say that. It is more or less of sandy bottom because there were piles driven for that wharf there. Not a character of bottom that would injure the vessel at all.

(It is stipulated that the photographs produced by the witness, after the hearing of the cause, may be returned to him.

Photographs marked Claimant's exhibit "1," attached to and returned herewith.

(Witness excused.)

Seattle, Washington, October 29, 1917.

It is stipulated by Proctors, that the depositions of witnesses on behalf of Claimant, be considered as taken under the stipulation appearing on page one of these depositions; and, pursuant to said stipulations, the depositions of the following witnesses were taken:

CAPT. THOMAS H. CANN, a witness on behalf of Claimant, pursuant to the foregoing stipulations, after being duly sworn, testified as follows:

Q. (Mr. Stratton). What is your business?
A. Master mariner.
Q. How long have you been a master mariner?
A. About sixteen years.
Q. You reside in Seattle?
A. Yes sir.
Q. With whom are you employed?
A. Pacific Steamship company.
Q. You are master of what vessel?
A. The City of Seattle.

Q. Have you been engaged on the sea ever since you had your master's papers?

A. Yes sir.

Q. And for how long before?

A. Ten years.

Q. Of what character of vessels have you acted master of?

A. Vessels of the class of the Pacific Coast Steamship company's, and of the Pacific Steamship company, and tugs.

Q. What kind of tugs?

A. Tyee.

Q. Sea going tug?

A. Sea going tugs.

Q. How long were you master of the tug Tyee?

A. I was only master of her about two weeks.

Q. Were you master of any other tug?

A. No sir. I was mate and pilot.

Q. For how long were you mate and pilot on tugs?

A. Nearly three years.

Q. What waters did you ply in?

A. From San Francisco to Dutch Harbor.

Q. While you were on the tugs, did you tow barges and vessels of different kinds?

A. Yes sir.

Q. Did you tow from Seattle or Puget Sound to southeastern Alaska.

A. Yes, sir.

Q. In making these trips did you go through Dixon's Entrance?

A. Yes, sir.

Q. And pass Tree Point and to the eastward of Mary Island?

A. Yes, sir.

Q. How many trips would you say you made over that water while you were on the tug, either as mate or pilot?

A. Oh, I could not say.

Q. A good many?

A. Yes, I made a good many.

Q. What character of vessels and barges have you towed in these waters?

A. Vessels of the class of the America, Charger and St. David.

Q. As you recollect about what is their tonnage?

A. About 1900 tons register?

Q. Are you acquainted with the barge Bangor?

A. Yes, I know her by sight only.

Q. You know about her size?

A. Yes, about her size.

Q. Are you acquainted with the tug Commodore?

A. I know her by sight. I have never been aboard of her. I have seen her lying at the dock and seen her towing.

Q. Have you run over these waters since you were pilot on a tug?

A. Yes sir.

Q. What experience have you had in these waters, captain, since you were pilot on a tug?

A. Since that time?

Q. Yes?

A. Well, almost continually. They had me off for about four months one winter; and four or five months another winter.

Q. And about how many years since you were pilot of tugs in these waters, have you been running either on passenger or freight vessels through these waters?

A. Well, I have been pilot on them, running since 1897, since I was on the tugs. How many trips, did you say?

Q. No, how many years?

A. Not since I was on the tugs. I went on the tugs in 1906.

Q. Well, how many years experience in these waters have you had either on tugs or passenger and freight vessels?

A. Well, since I went there first in 1889.

Q. Your employment has been principally on these waters between Puget Sound and Alaska?

A. The majority of the time, yes.

Q. And southeastern Alaska particularly?

A. Yes sir.

Q. From your experience are you familiar with the waters that I have mentioned, Dixon's Entrance, Tree Point and Mary Island?

A. Yes, sir.

Q. Know how the tides run there?

A. Approximately. I don't have in my mind how the tides run. A big tide will run stronger and go out in the channel more.

Q. When you were on a tug did you have a towing machine?

A. Yes, not all of the tugs but some of them?

Q. What is the purpose of a towing machine?

A. So that you are able to handle the towing hawser, take it in and let it out, and towing on the engine, to relieve

the strain on the hawser when she comes up on a sea or ti rip or anything of that kind.

Q. Suppose a tug with a tow should turn at right angl with a towing machine in gear and in operation, would the be any extra strain on the hawser.

A. Yes, if they were going full speed. If she w slowed down, of course there would be a little strain, extr strain on it. If the man on the barge started and follow the tug the strain would not be but very little, when she w slowed down.

Q. If the tug was running at half speed, say five knot an hour or thereabouts, and turned at right angles, woul there be any appreciable extra strain on the connections be tween the tug and barge, on the hawser if the towing ma chine was working and in operation?

A. A right angle turn, it would be considerable. If yo turn at a right angle it would be considerable. A righ angle is a pretty fierce turn, because unless the barge goe well over, at the same time she goes past that center poin on the right angle.

Q. If the tug put her helm hard aport, what would be the effect where the tug was going only half speed?

A. She would go as far as you went on the right angle after he got on the right angle, he would steady up again and that would cause quite a little strain on the hawser; the hawser would run out of the towing machine and then when she got out to that, where the pressure on these two cylinders, where it sets, then she would begin to hold and as soon as she got her strain, then she would begin to take that hawser back again.

Q. Would there be any sudden strain, though?

A. Not with the towing machine.

Q. The increased strain would be gradual, would it not?

MR. GORHAM: I object as leading.

A. If you knew the nature of these machines. They are set with about a certain weight. It all depends on the size of the machine, and pressure of steam. You generally carry about 100 pounds on them, and when that strain comes like a shock on it, a sea or tide rip, she lets the hawser go out, but when she does that the steam is increased in there; she gives out say about 100 feet in that neighborhood, that is a pretty good run out, and then that begins to get so awful heavy there, then that will double up the pressure on that hawser and increase steam, and as soon as she gets that, she starts working it right back until she gets back to normal position, say a hundred pounds pressure.

Q. I will ask you whether or not in machine work that way there is any sudden jerk upon the shackle or other appliances that connects the tow to the tug?

A. On the hawser?

Q. Yes, or whether the strain is a gradual one?

A. It is gradual, but she comes pretty sudden when a sea strikes a vessel on her bow, or she gets in a big tide rip, or a turn something of that kind, she will start very quick, but not like a sudden jerk as if the hawser was made fast solid, there is that give.

Q. Well, suppose the tug put her helm hard aport, state whether or not that would cause a sudden jerk on the towing gear?

A. No, I do not think it would, at least we have not had the experience of any sudden jerk with a towing machine by putting her wheel over. If you have got an engineer that could explain the mechanism of one of these towing machines you could probably understand, he could tell it better than I can. He could give you the pressure, especially on the machine that is working. Now with the machine that I was working with, we had the steam reduced down to a hundred pounds, on the towing machine, I mean.

Q. Captain, assume that the tug Commodore towed the American barge Bangor, loaded approximately with a thousand tons of cargo, and the tow line of the tug made fast at one end of the towing machine in the tug, and the other made fast to a shackle which was attached to the anchor chain of the barge. And, assume that the tide was high at 2:24 A. M., which would be 3:24, ship's time; and that that tug and barge passed on the way north Tree Point at 11:19 p. m.; that she made about 7½ knots an hour, and that there were snow squalls and it was raining more or less, and sleet coming down; the wind running 30 miles an hour and upwards, from the southeast, the weather was dirty, and the tow properly following. I wanted to say that the tug picked up Tree Point light at 11:19 that night when she passed, and was half a mile off Tree Point at the time. That the tug proceeded at that rate of speed until 1 o'clock a. m.; that would be an hour and forty one minutes, and at that time changed her course to northwest and slowed down to half speed; and at 1:45 or thereabouts, after running 45 minutes on the change to the last course, found herself close to Mary Island, or close to the little island immediately eastward of Mary Island. I will ask you whether or not the master of the tug acted properly and as a good seaman?

A. I would not say that—I was not there.

Q. Well, what would you have done under these circumstances? I will ask you if the captain took the proper course?

A. If it was the proper course?

Q. Yes.

A. You did not tell me the first course.

Q. Did I not say the course from Tree Point until he changed the course to northwest, was north west one half west, and that when he changed at one o'clock he changed his course to northwest?

A. (Witness examines chart). The course is northwest half

Q. (Mr. Gorham) Magnetic?

A. Magnetic. If he steered northwest half west his compass must have been magnetic.

Q. (Mr. Stratton). Well, suppose his compass did not deviate more than one degree or thereabouts?

A. One degree would hardly make any difference on a trip of that kind in Alaska. It is hardly noticeable on account of the currents, winds and steering.

Q. But I understand you to say that is the proper course.

A. This pencil track?

Q. Yes.

A. Yes, that is the proper course, regular steamship track.

Q. That is the course that you have given there.

A. Yes, what I laid off there is proper.

Q. Now captain, if at 1:45 or thereabouts, the master of the tug found himself close to Mary Island shore, what if any, explanation can you give for his being in that particular location, and not being further to the eastward out in the channel?

A. The only thing I can say, this particular stretch of water is a hard track to steer, even in passenger ships and freight ships, when we cannot see, in snowstorms and thick weather we cannot see far, and we have to run until we pick up something. Sometimes we will make that straight along there. As a general rule we sag in here towards the island.

Q. Towards Mary Island?

A. Yes, towards Mary Island. Generally we do, probably on account of the cross tides and currents coming out of there, and when the tide comes up and comes around there.

Q. Coming up from the south?

A. Yes. Coming around this way the wind strikes you

on the stern, and keeps you headed on like that, it keeps throwing your bow in, throwing the bow to the westward. That has been my experience. I think there are times when you expect that to happen; and sometimes we find ourselves very near Black Rock.

Q. What is the character of Black Rocks?

A. Black Rock itself sticks out of the water ten feet, I think.

Q. Is there any light on that?

A. No. There is going to be one, twenty five feet.

Q. Any whistle?

A. No sir.

Q. I will ask you whether or not Revillagigedo channel is or is not a difficult piece of water to navigate? Uncertain?

A. Yes, sir, at times. Like all Alaskan waters, on account of the tides and currents. When it gets foggy or snowstorm, there is no channel that you are absolutely safe in.

Q. Well, under the circumstances, do you know of anything that should have been done so as to avoid getting so close to Mary Island?

A. Well, if he sighted Mary Island too close, the only thing to do is to haul off. That is the only thing you could do. And then you state the shackle parted?

Q. The shackle parted and the tow went ashore.

CROSS EXAMINATION:

Q. (Mr. Gorham). The dirtier the weather and the blacker the night, the more precaution you would take?

A. Oh yes.

Q. And passing Tree Point light, the next light you would pick up would be Mary Island light?

A. Mary Island light or horn.

Q. And how would you determine when you ought to pick up the Mary Island light or horn on a dark dirty night?

A. The only thing you could do is by figuring speed.

Q. And your course?

A. And your course, and it would be just a case of dead reckoning.

Q. You would have to figure your speed?

A. Well, they figure their speed by previous points they have passed. For instance when coming from below you pick up Lord Rock and then to Tree Point light, he would take his time and distance and he would get his approximate speed. Mr. Stratton says seven and a half miles an hour. I pre-

sume that is the way he determined his speed. That is the way I would.

Q. Is that the only way to determine it?

A. That is the only way you could determine it.

Q. Is that the only way you determine it aboard a freighter or a passenger steamer?

A. Yes, and get absolutely your time; the other is only guess work.

Q. What other?

A. By taking the speed of the ship. Say my tug is going seven and a half miles an hour, I have so much distance to make it will take us along—15 miles would be two hours.

Q. Do you mean to say, captain, that is the only method you mariners use in determining the distance you run from a given course is by reverting back to a previous course an hour or more back in the past?

A. It is the safest. If you take a log in that kind of weather and where the tide is, you would not know where you were. That log where you have tides is absolutely unreliable and if you use a log you try to put dependence on that log, and you are worse off than without it. The log is only for outside work.

Q. Don't you use a log in Alaskan waters?

A. I do not at all.

Q. You do not use a log on the City of Seattle?

A. No sir, never.

Q. Don't you know that the other vessels do?

A. I know a lot of them don't.

Q. You know a lot of them do, too?

A. I know some of them in certain places.

Q. And they put their log in crossing Dixon's Entrance?

A. I don't know. If they put it out here they would put it out at Wood Point and run to Tree Point.

Q. You would take it in?

A. They would be likely to take it in; some would run through.

Q. Mary Island too?

A. Mary Island too.

Q. Now there is sufficient sea room there in that channel from Tree Point to Mary Island for safety?

A. Plenty of sea room.

Q. And in a dirty night, leaving Tree Point and coming up, the next thing you would expect to get a point of departure from would be Mary Island light or fog horn?

A. Yes sir.

Q. And if that light did not open up and you did not hear the horn, what would you do?

A. Have to run until you picked it up. You would have to run according to your own judgment.

Q. Would you run over time?

A. If I had run over time I would turn and run straight for the island.

Q. You would not run back on your course after you came there?

A. After I ran up my time, I would start in and pick up that light.

Q. And if you did not pick it up then you would do what?

A. Then I would sound and work myself in until I got shoal enough to find out something.

Q. You know the hypothesis is that you have got a fair wind thirty miles and upward?

A. Yes.

Q. You think it is good seamanship to run in on that island in that wind?

A. Run straight in on it.

Q. In a dark night where you cannot see the island?

A. I would rather pick that up than something I did not know about.

Q. Would not it be safe to return on your course?

A. When I got that far it would be just as hard a job to pick up Tree Point.

Q. You could run half way back, could you not?

A. Half way back? What good would that do. If you run clear back to Tree Point and suppose you came away out here—

Q. You would not be out there if you ran back on the same course.

A. You don't know.

Q. Why not?

A. As I said before on account of the wind and tide you could not rely on any of these courses that you run. She might be out here. You would not know where you were.

Q. At the place marked X?

A. You might be there. And if you wanted to find Tree Point you would have to run straight in for it, so you might as well run straight in for Mary Island light.

Q. Now with an ebb tide and that wind there would not be much set to the current there?

A. That you cannot tell, with a flood tide and a fair wind.

Q. I did not say anything about a flood tide. I said an ebb tide.

A. Ebb tide.

Q. If you had an ebb tide, were going north with an ebb tide, there would not be much current there?

A. No, I guess there would not.

Q. One would offset the other to some extent.

A. On the surface it would make a choppy sea. We get currents there that I don't think any man can tell anything about. We know the tide, of course.

Q. You were on the Tyee?

A. I was captain of the Tyee a couple of weeks.

Q. What tug were you mate of?

A. The Goliah, on her a year.

Q. As pilot?

A. Pilot and mate.

Q. You were on her when she piled her barge up on Green island?

A. Yes sir.

Q. You were off watch?

A. I was off watch.

Q. That is not personal, simply to get it in the record. And the barge was left there?

A. Yes sir.

Q. Did you tow the St. David up there?

A. I have towed the St. David up there several times.

Q. The St. David is there now, is she not?

A. No, I think I saw her the other day.

Q She is afloat is she?

A. Yes.

Q. What is that vessel that was lost?

A. You mean the James Drummond?

Q. Who towed her up there?

A. I think it was the Pioneer; I am not sure.

Q. She is on the rocks there.

A. Yes sir.

Q. A good many craft on the rocks between Queen Charlotte Sound and Juneau and Cross Sound?

A. Yes, there has been quite a number.

Q. Dangerous waters.

A. Alaska and British Columbia waters are very dangerous. I think they are more dangerous than they are given credit for.

Q. If the tide was flooding and coming around the south end of Duke island, would that have a tendency to set your stern over; and if you knew these conditions you would adjust your course to these conditions would you not?

A. When you set a course on that tract of dirty water you have nothing to go by until you pick up something at the other end.

Q. But if you know that your stern is being set over constantly by a flood tide, you make allowance for that to some extent?

A. You make as much allowance as you think proper and set it on and let her go until you get there.

Q. Whether you fetch up on a reef or not?

A. But if you are going to run it you have to look out for the particular conditions. When you start out and cannot see anything, and you have 21 miles to go to the next light, you have got to go for it. And it cannot be any worse up there than coming back, if you turn around and double back on your course with the chance to pick up this light again.

Q. But if you have run your other course out and ought to get the light and don't get it?

A. You have to go and look for it.

Q. You know there is something wrong?

A. You know there is something wrong and you have to go and look for it. If you don't find that light there, you cannot tell where you are; you may be somewhere else.

Q. You have to find that light to get a point of departure?

A. Yes, because you cannot take a chance of going by. It is better to run to this bold shore. I may have run my time and distance so that I should be abreast of the light and I may be away out here, I may just miss Black rocks.

Q. (Mr. Stratton). You mean at the point B?

A. Yes sir. Now your time is up, you have got to find something; it is better to haul right straight in and pick it up.

Q. You would use your lead when you hauled in?

A. We would use our lead; we would take every precaution possible. We would slow down; blow the whistle and try to catch an echo. I would not dare run by. You come up on that course and you don't know where you are, and you would have to pick up that light.

Q. (Mr. Gorham). And if after running out your course north west a quarter west, you change your course to northwest one half west, that is the original course. You then change your course to northwest. Which way would that bring you, in to or away from Mary Island?

A. Away from the island, half a point.

Q. So that would not be making into the island from the other course?

A. No, sir.

Q. And if the log book showed he ran the course northwest half west to one o'clock, having left Tree Point at 11:19, and then at one o'clock changed his course to northwest, it would indicate he was not trying to pick up the island?

A. I would not say that.

Q. It would not indicate he was doing what you said you would do? Go into the island?

A. That is after I got clear up there, then I would run in to the island. He was not up there then. He only ran an hour and some minutes, that would not bring him up there. He changed a half a point, I presume to run and be sure he was clear. Probably the indications he got from his distance, and then he would come in and find it. I cannot say what that man was going to do.

Q. What I want, captain, to get from you, is when he came up on the first course from Tree Point and one o'clock changed his course to northwest, then he would be going to the eastward?

A. Going to the eastward, yes.

Q. If he did not change his course after that until he lost his tow, then it would indicate, so far as that statement is concerned, that he was not trying to run in to the island up to that point?

A. Yes, I think so.

Q. In other words, if his first course was northwest half west, then changed to northwest, how many points would he have to come around to go toward the island?

A. To run up to the light he would have to come to a right angle, to run in to the beach.

Q. In other words, on that northwest course he was going to the east.

A. He was playing safe when he made that track.

Q. To clear the island.

A. To clear the island. That was his idea of playing safe, hauling out.

Q. When, as a matter of fact, that northwest course brought him to this little island just east of Mary Island in the bight there.

A. He had set more than he figured on in the first place.

Q. Or else his compass—

A. Or his compass was out.

Q. This tide was coming down through Tongas narrows?

A. Yes, what little that came.

Q. And the tides met there in this channel, off Mary Island, the tides from the north and from the south?

A. Well, it shows where they meet, generally.
Q. Where?
A. The British chart shows it.
A. The British chart shows it.
A. I don't think there are any tides meet in this channel.
Q. In that channel?
A. I don't think so. I don't know of any. They come out and then they come in. They generally meet in a place like this.
Q. In Tongas Narrows you refer to?
A. Yes, that is how the tide meets out in these particular waters. Generally there is no tide meets there. They only start out and come back.

REDIRECT EXAMINATION:

Q. (Mr. Stratton). Is it or is it not, captain, an unusual thing for a vessel going from Tree Point past Mary Island, to get off her course, especially on dark nights?
A. It is very frequent. As I said a while back it is a hard track to make.
Q. Do you or do you not know it is a frequent occurrence for tug boats to find themlseves, when they do find themselves, right up against Mary Island?

MR. GORHAM: I ask that he confine it to his own experience.

A. My experience is that I found myself over on the Mary Island shore, close to Mary Island shore, in towing up there, on more than one occasion.
Q. (Mr. Gorham) What precaution did you take for the safety of your tow under those conditions?
A. After I had my course and wind and tide, and everything figured out, I set her on her course and I had to run until my time was up, and if I picked up anything I would naturally haul in, and if I brought up to Mary Island too close, I would haul out until I was clear and then come back on my course again.
Q. And knowing that island was there, for the safety of the tow, you say you would use your lead?
A. I would use the lead if I was getting too close.
Q. How would you know you were getting too close?
A. That you don't know.
Q. So you would use your lead.
A. I would use my lead. The lead, you know, when you cannot on the log or trumpet. Now to explain to you, I say I think I am going to be set this way to the westerly; I think

I am going to be set that way, and I go to where I think I am overcoming that, but if I get too much to the east I am liable to find myself on Black Rock. I have been on the other side of Black Rock. It is a very bad channel there to make up between them when it is snowing or fog or dark. If it was just dark it would not be so bad because you would naturally pick up the light a long ways off, on a dark night if it was not dirty.

Q. (Mr. Stratton). Captain, when would you commence to use your lead, for instance?

A. After I passed Tree Point?

Q. Yes. For instance if you had been going seven and a half knots an hour and run until one o'clock.

A. Two hours would be fifteen miles, you say.

Q. And then you change your course and went under a slow bell, would you commence sounding before 1:45?

A. That would only bring me to Black Rock.

Q. Which would be 12 miles.

A. No, I don't think I would start until 2 hours, as long as there are deep soundings out in the channel; as soon as you get in close, 40 or 60; I would wait until I got in shoaler water. Out here it is 114, 117, 135. I know I am out there.

Q. (Mr. Gorham) How do you know if you do not sound?

A. I sound.

Q. If you got 100 fathoms you would know you were in the deep channel.

A. Yes. You keep this same track here, a little bit wide of Mary Island. Now there is 90 fathoms, and 54, that is over pretty far, and then when you come over here there is 101.

Q. But that is away north of Mary Island.

A. I have passed it. In case I went by. You see we might get that 30 fathoms and that would give us time enough to haul off.

Q. (Mr. Stratton). If he was running seven and a half knots an hour from Tree Point and ran an hour and forty minutes he would run 12½ miles, then he changed his course and slowed down at one o'clock. Would you, if you had been in his place, commenced any soundings before 1:45?

A. No sir. I think he was perfectly safe on that, it looks to me to be perfectly safe. I think the captain is the best man to judge that.

Q. (Mr. Gorham). Did you understand that last question? He has run 12 miles at one o'clock. Now you say you would sound and if you got 100 fathoms—

A. I said he would run 15 miles in two hours; he run an hour and forty three minutes. That is less than two hours.

Q. From 11:19 to 1:19 is 2 hours.

A. Yes.

Q. That is a long while before 1:45.

A. Well, some men don't sound at all.

Q. That is not what you were asked. You were asked what you would do.

A. Well, I think I would have started to sound, if I was in dirty weather, and if I had a patent sounding machine I would sound. If you had no patent sounding machine you are up in the air.

Q. (Mr. Stratton). All vessel don't have patent sounding machines?

A. No. And if you start to monkey with a hand lead, the chances are you will be ashore before you get bottom.

Q. Do tugs generally carry patent sounding machines?

A. I have been on tugs that had them.

(Witness excused).

CAPT. JACOB JACOBSON, a witness called on behalf of the Claimant pursuant to the foregoing stipulations, being duly sworn, testified as follows:

Q. (Mr. Stratton). Where do you reside, captain?

A. Port Townsend.

Q. How long have you lived on Puget Sound?

A. Since 1883.

Q. What has been your business during that time?

A. Seafaring man.

Q. Have you master's papers?

A. Yes sir.

Q. When did you get your first master's papers?

A. 1890.

(At request of Proctor for libelant, other witnesses for Claimant, were excluded from the room).

Q. Did you hold mate's papers?

A. The year before.

Q. And where and on what waters have you been employed?

A. On Puget Sound and Alaskan waters, and Pacific ocean, and also on the Atlantic, one trip.

Q. What waters did you run on while you were mate?

A. Puget Sound and Alaska.

Q. Southeastern Alaska.

Q. Did that take you through Revillagigedo channel?

A. Yes.

Q. Since you have been master on what waters have you been employed?

A. Puget Sound and Alaska and Pacific Ocean.

Q. Have you been master of passenger vessels?

A. No sir.

Q. Your employment has been confined to tugs has it, captain?

A. Yes sir.

Q. What tugs have you been master of?

A. I have been master of the Richard Holyoke several times. Tug Pioneer, tug Tacoma, tug Tattoosh, tug Goliah, over here, and tug Escort in Tacoma.

Q. What character of tugs generally, ocean going or otherwise?

A. Ocean and sound towing here.

Q. Did that include southeastern Alaska?

A. Yes.

Q. What was the character of towing that you have done?

A. Towed ships and barges and scows.

Q. Can you state, captain, approximately, how many times you have towed vessels, barges or scows through the channel which we have mentioned, running between Tree Point and Mary Island?

A. No sir, I cannot remember the number of times, but it was a good many. I started in 1897; that was my first trip up there.

Q. I will ask you then if your employment has been continuous, as tug captain, from the time you were mate up to the present time?

A. Yes sir.

Q. What proportion of the time have you spent in towing on the southeastern route, which would take you through the waters we have mentioned, about, you know. Have you spent half the time towing in southeastern Alaska waters?

A. More than that sir.

Q. And your business is that of tug captain at the present time?

A. Mate at the present time.

Q. Are you acquainted with the tug Commodore?

A. I have seen her once or twice.

Q. Are you acquainted with the barge Bangor?

A. I have seen her also. A couple of times.

Q. Have you operated tugs which had on them towing machines?

A. Yes sir.

Q. Are you familiar with the mechanism of and the working of towing machines?

A. Yes sir.

Q. Have you operated them and caused them to be operated on your vessels?

A. Yes sir.

Q. What is the purpose of a towing machine on a tug?

A. It is intended to heave in when the wire is slack and pay out when there comes a big strain on it, automatic when you have steam on it all the time.

Q. When the towing machine has steam on and is in operation what effect does it have in taking up the slack and in keeping the strain on the tow line uniform?

A. If there is any slack there it will heave it in until it becomes taut; the steam shuts that off then, the automatic valve shuts them off, when there is a strain again on the hawser.

Q. State whether or not there is any strain permitted when the towing machine is in operation, any sudden jerk on the tow line, even when the tug should turn, say, at right angles?

A. Why, he will pay out a little.

Q. Well, does it permit of any sudden jerk on the tow line?

A. No.

Q. Does it permit of any sudden or unusual strain on the tow line?

A. No sir.

Q. If you were towing a barge, captain, and you had a towing machine on the tug, and you put your helm hard a starboard so that your vessel would change its course 90 degrees, would that put any unusual or extraordinary strain upon the towing appliances?

A. She would heave in the slack of the wire.

Q. And would that prevent any sudden jerk?

A. No sir.

Q. I say, would it prevent any sudden jerk or strain.

A. There would be no jerking or strain.

Q. Would there be any unusual or extraordinary strain?

A. No sir.

Q. Do you know from an examination of the United States tide tables or otherwise, at what time there was high tide at Mary Island, on the 26th day of March last?

A. In the morning or afternoon?

Q. In the morning.

A. At Sitka it was 2:14 a. m. and at Juneau, 2:36. Now,

Sitka and Juneau are quite a ways from that place, and you have to get the correction.

Q. About what time would it be at Mary Island, high tide?

A. Thirty minutes subtracted from 2:36.

Q. That would be 2:06.

A. Yes, sir.

Q. That would be high tide at Mary Island?

A. Yes. That is on the 135th meridian.

Q. When would it be high tide at Tree Point?

A. Forty minutes to be subtracted from 2:36; it would be 1:56. That is according to the tide table.

Q. Now what publication is that tide table, is that the government tide table?

A. Yes.

Q. Government Printing office, 1916.

A. Yes.

MR. STRATTON: I offer the tide table in evidence.

Document marked Claimant's exhibit 2, returned herewith.

Q. Have you navigated with tugs and tows Revillagigedo channel in the night time?

A. Yes sir.

Q. Has that been frequent or infrequent?

A. Oh yes, many times at night as during the day.

Q. I would like, captain, if you could give an estimate of how many times you have been through that channel with a tug. I would like to get it in the record. Give some idea.

A. Oh, five hundred times, anyhow.

Q. Five hundred round trips through that channel. Have you been through there, captain, at pretty nearly all stages of tide, and in all kinds of weather?

A. Yes, we have.

Q. State whether or not you are familiar with the character of the tides and currents and the conditions of that channel?

A. Well, the currents I know very little about.

Q. Why, captain?

A. Well, there are no books to tell you how the currents run there and what strength it runs.

Q. And have you been able, from your experience, to find out very much about that?

A. Not any more than I have seen from fishermen's buoys that have been anchored, and when I went by them I could see which way the tides were running, and that was

down off Tree Point or a little to the northward of Tree Point.

Q. What about further up to the northward?

A. I never had a chance to see.

Q. In running over that channel, can you take a course and follow it with any degree of certainty, as to whether or not you are going to be out of the course or in the course?

A. No sir.

Q. Just explain to the Court how that is?

A. As I stated before, I have been coming up there many times and could hardly make the same course twice, the reason why I did not know.

Q. There are a great many inlets coming into that Revillagigedo channel are there?

A. Yes.

Q. And may or may not they have any influence on the currents and tides in the channel?

A. Well that I don't know.

Q. In going north from Tree Point past the light on Mary Island, state whether or not when you were master of a tug having a tow, you have ever got, on thick nights when you could not pick up the light on Mary Island, that is got very close to Mary Island?

A. Yes sir.

Q. And when you found you were thus close to the island what did you do?

A. I would haul away from it.

Q. When the tide is flooding up there, which way would the tide run through the channel?

A. How far up?

Q. Well, from Tree Point up north to Mary Island.

A. Well, what I have seen of it, I have seen fishermen lying here—

Q. Where?

A. Right off Tree Point and up to four or five miles.

Q. North of Tree Point four or five miles.

A. Yes, that place off the land there, they cannot fish any where else, that is nice and smooth, and when you happen to be passing by there, you can see which way the tide runs from their buoys that are anchored. But out here I have no idea.

Q. By "there" you mean in the middle of the channel abreast of Mary Island.

A. Yes.

Q. How about south of Mary Island?

A. It runs northwest and southeast.

Q. The tide up there?

A. Yes.

Q. It runs northwest during the flood and southeast during the ebb?

A. Yes sir.

Q. State whether or not the tide when flooding comes easterly south of Duke island?

A. Well, I do not know anything about the tide over at Duke island at all. My business never called me over there.

Q. But in as much as the tide comes from out of the ocean it must have gone in an easterly direction?

A. It must come from the ocean and turn this way.

Q. Turn up around the south side of Duke island?

A. Yes sir.

Q. Now, what effect, if any, would the tide flowing around the south of Duke island, when the tide was flooding back upon the stern of a ship, would it tend to put the ship in either direction.

MR. GORHAM: I object to your leading the witness.

A. Well, it may not run up here at all.

Q. May not run?

A. Up in the middle of the channel. I don't know about the tide down south of Mary Island.

Q. Do you know what the distance is from Tree Point to Mary Island light?

A. 19½ miles between the two lights.

Q. Now captain, assume, just suppose, these facts: That the tug Commodore towing that barge Bangor, laden with approximately a thousand tons of cargo, the barge being attached to the tug by means of a steel hawser, one end of the hawser being made fast to the towing machine in the tug, and the other end of the hawser attached to a shackle made fast to the anchor chain of the barge. That on the 26th of March 1917, this tug and tow passed Tree Point at 11:19, the tug and tow being a half a mile from the shore at that point. The wind running 30 miles an hour and upwards, from a southeasterly direction; there being frequent snow squalls, the weather dirty. The tow properly following; the tug and tow going north at the rate of seven and a half miles an hour over the ground. That the tug proceeded on the course from Tree Point north west one half west, until one o'clock, when it changed its course to northwest, and slowed down to half speed; and that at 1:45, the vessel still being under half speed, the master of the tug found that he was close to this little island, which you see

immediately east of about the center of Mary Island. Now, I will ask you whether or not in your opinion, the proper course was steered?

A. Yes, he steered a proper course, as long as he was sure he was a half a mile off Tree Point.

Q. The question assumes that the tug picked up Tree Point light.

A. Yes. He done perfectly right.

Q. Then, how do you explain, captain, that he found himself so close to Mary Island?

A. No sir, I cannot.

Q. Is or is not the fact that he found himself close to Mary Island, or that any tug captain under the same circumstances would find himself close to Mary Island, an unusual thing in navigating these waters?

A. No sir.

Q. As I understood you to say, you did not know what the cause of his being thrown over on Mary Island. What, in your opinion, would it be, if you have an opinion on that?

A. Well, probably the sea, the swell that was rolling after him; it might have been on his quarter a little bit.

Q. Was that the proper thing for him to do?

A. Yes sir, I would have done the same thing.

Q. What, if anything, would you have done different from what the captain of the tug Commodore did, in your opinion?

A. I don't see that he could do anything different, in my opinion.

Q. Now, assuming also—this is another question—assuming that after he found himself close to that little island, he put his helm hard aport, what would you have done under the circumstances?

A. If I had sighted the island?

Q. Yes.

A. I would have ported my wheel.

Q. What would be your purpose in porting your wheel?

A. I have to do that to get clear.

Q. Now, assume that this tow line was 180 fathoms. I will ask you whether or not turning the tug at right angles by porting the helm hard over, whether or not if the tug escaped the island the barge would also escape?

A. Yes sir.

Q. I will ask you whether or not there is or is not a tendency of a tow, when the tug would be put hard over to port, to cut the corner and go further to the eastward than the tug would go. For instance let me illustrate. Suppose here is the tug (sketching on paper) that I mark T, and there

is the hawser marked H, and here is the tow marked A. Now, suppose under these circumstances the voyage being practically north, whether or not under these circumstances, if the tug put her helm hard over, what kind of a circle would she make on there. Just mark what kind of a circle the tug would make?

A. The tug would make?

Q. Yes.

(Witness draws line on sketch)

Q. Then the tug would make the circle T. B. Now, where would the barge go?

A. Probably that is a little bit quick; it all depends. I can make it a little shorter.

Q. I will mark that line T. B. Now what would be the course of the barge, under these circumstances. Mark on there where the barge would go?

A. He is supposed to make the same course that the tug does.

Q. Suppose no signals were given and nothing done with the helm on the barge, what would be the course of the barge?

(Witness draws line)

Q. The course of the barge would be along the line A. B.?

A. Yes sir.

Q. Now, if Mary Island was around here—mark Mary Island on there. What would be the tendency of the barge to go closer to the island than the tug, or go further from it in making the turn?

A. The barge would leave the island.

MR. STRATTON: I offer this sketch in evidence.

Sketch marked Claimant's exhibit 3, and returned herewith.

Q. I will ask you, captain whether it is usual or customary for tug boats plying in southeastern Alaskan waters or through Dixon's Entrance or Revillagigedo channel to carry a taffrail log?

A. No sir.

Q. Is it customary, if you know, for passenger and freight vessels in these waters to carry that log?

A. Very few does. Once in a while you can see one of them on the boats.

Q. Now, assuming, as I have already stated, that the Commodore running at about seven and a half knots an hour from Tree Point on the course northwest half west

until one o'clock, and then changing her course to northwest and continued under slow speed until 1:45, at which time she found herself close to Mary Island, I will ask you whether or not it would, in your opinion be necessary or usual or customary, to make any soundings before 1:45?

A. No sir, I never would. It is not customary to do it.

Q. Or would you have tried to get any echoes in the mean time. Of course, in all these questions, Mary Island light had not been picked up.

A. Well, by running full speed that length of time, an hour and forty minutes, or whatever it was, then slow the rest of the time, I would be sure I went right, in my opinion, I would be sure I went right.

Q. Without taking any echoes or soundings?

A. Without feeling uneasy at all.

Q. Assuming that the captain of the Commodore has done as I stated, do you know of anything that he left undone or that he should have done, for the safety of that tow?

A. No sir.

Q. I will ask you whether or not you know of any instance where other masters of tugs, towing in that channel, have in the night time, when the night was dark, and they were not able to pick up Mary Island light, found themselves close to Mary Island.

A. That happened to me time and time again.

Q. Do you know whether it has happened to other captains?

A. It has happened to most every captain.

MR. GORHAM: If you know of your own knowledge, if you were aboard; we don't want what they told you.

A. I have been there as mate and pilot, so I have been on the same vessels.

Q. Go ahead, answer the question.

A. Well, I have been master and found myself that way, and also when mate and pilot on other boats.

Q. Many times or a few times?

A. Oh, probably half as many times as I have been going up there.

Q. And when you found yourself that way, were you off the course that you had set for your boat to go?

A. No sir, right on the course, and it hadn't carried me there.

Q. You say you found yourself off the course you thought you were going?

A. Yes sir, sure.

Q. Now you know where Black Rock is up there, don' you captain?

A. Yes.

Q. I will ask you if they set high out of the water?

A. No, twenty five feet high, I think, if I remembe right.

Q. Are these rocks any menace or danger to navig tion?

A. They are.

Q. Are there any rocks or reefs or shoals or anythin in there that is a menace to navigation?

A. Rocks on the other side of you.

Q. They are a little southwest of Black Rock are the not?

A. Yes.

Q. I will ask you whether or not that Revillagige channel is considered a difficult channel to navigate?

A. It seems to be, yes, for that width of water.

Q. I will ask you whether or not in towing in sout eastern Alaska it is usual or customary when a tug is ma ing a turn to give a signal to the tow?

A. No sir; at least I don't.

Q. Well do you know of any who do?

A. No sir, not except when you are in a narrow wate to call the captain to be particular about the steering through the narrow waters.

Q. Calling the captain, but you would not give any si nals to the tow?

A. Well, for the tow, they have their signals to th effect, so many toots to call him, that is in narrow waters.

Q. Well, would you call Revillagigedo channel narr waters?

A. No sir.

Q. I will ask you if there is any official publicati showing the course to steer from Tree Point to Mary Island

A. Yes sir.

Q. What is that publication?

A. The course to go that is printed.

Q. For whom or under whose authority is that printe

A. The government.

Q. Do you know what that book shows the course to b

MR. GORHAM: Let us find out what the publication i

Q. I just asked if he knows.

A. Yes sir.

Q. Have you got that book with you?

A. No sir.

Q. Do you know where it can be obtained?
A. Yes.
Q. Where?
A. Captain Olsen has it.
Q. I show you this book, (produced by Captain Olsen), marked "Summerville's Recordings," and ask if that is the publication referred to?
A. Yes sir.
Q. I notice on the title page here that it says "Published by Max Kuner Co., Nautical Computations, Chronometers, Watchmakers, Government charts, " etc. I will ask you if you have found that to be a correct statement of the course in Revillagigedo channel?
A. Yes sir.
Q. You may state what it shows?

MR. GORHAM: I object as immaterial. This witness has had experience and states what he thinks is the proper course. It is immaterial whether his actual experience is supported by a printed book published by a watchmaker. We object as immaterial and incompetent.

A. Tree Point light to Winslow?
Q. Point Winslow is Mary Island light, is it?
A. Yes. Northwest three eighths west, 19½ miles.
Q. Now, if the Commodore was half a mile from Tree Point light, what would you say with respect to a course north west one half west being the proper course under these circumstances?
A. Yes.
Q. What would you say with respect to the change of course to northwest, after the tug had gone until 1 o'clock?

MR. GORHAM: I object to that as cross examination of his own witness. He has stated the proper course to be a certain, definite course from Tree Point to Winslow, and that does not permit any change.

MR. STRATTON: That probably means the middle channel.

A. It is mid channel course.

(Question read to witness).

MR. GORHAM: I renew my objections.

Q. Was that a proper course?
A. Yes, I would have done the same thing.
Q. How is the water at Tree Point with reference to being perfectly safe for navigation a half mile out?

A. Good, plenty of water.

Q. And with respect to safe navigation, how close can you go to the east side of Mary Island? Is the water deep or shallow close to the shore?

A. Half a mile off is plenty far enough off, anywhere around the island on that side.

Q. When you speak of the course, you mean magnetic?

A. Magnetic course.

Q. I will ask you what effect sudden changes would have upon the shackle which is used to connect the tow to the tug, with respect to its crystallization of the iron, making it weak?

A. That I don't know.

Q. Do you know what the diameter of steel towing line used for towing in southeastern Alaska, usually are?

A. Well, that depends on the size of the boat, you know.

CROSS EXAMINATION:

Q. (Mr. Gorham). Where do you live, captain?

A. Port Townsend.

Q. How long have you lived there?

A. Since 1883, sir.

Q. Did you ever see the Pacific Coast Pilot?

A. Yes sir.

Q. The Alaska Pilot?

A. Alaska Pilot, yes.

Q. Have you had a copy of it?

A. Yes sir.

Q. Have you studied it?

A. Oh, once in a while, a little.

Q. Ever refer to that for any guidance at all in navigating your tugs?

A. Sometimes.

Q. What does the Alaska Pilot, a book issued by the government—it is issued by the government is it not?

A. Yes sir.

Q. What does the Alaska Pilot say with reference to currents in Revillagigedo channel?

A. Nothing that I know of.

Q. Did you ever look in there to find out if it did?

A. Well, I had no reason to look in the Pilot directory for sailing in that water.

Q. You say you were not able to ascertain the currents in that channel. Does not the careful navigator want to find out all he can about the waters he is traveling over?

A. That is not necessary.

Q. What is not necessary?

A. To find out anything so particular about currents up there.

Q. It is not?

A. No, if there is any at all.

Q. It is not necessary for a man in charge of a tug towing barges through in thick weather and stormy weather in the night? You would not consider that necessary?

A. No. At least I did not take it.

Q. How many inlets make into Revillagigedo channel, do you know?

A. There is two that I know of.

Q. Is that all?

A. The two big ones. There may be some other little streams that I am not familiar with.

Q. What did you mean, when counsel asked on direct examination that there were a good many inlets into Revillagigedo channel, and you said yes?

A. I said yes.

Q. You answered the question in the affirmative.

A. Well, if you are going to count them all right up to Ketchikan that way—

Q. Is Ketchikan on Revillagigedo channel?

A. Yes.

Q. That is on Tongas Narrows?

A. Yes, Tongas Narrows. That is all Revillagigedo channel until you get up to Clarence Straits.

Q. It is all one channel up to Clarence Straits, is it. And so you repeat now that there are a great many currents making into Revillagigedo channel?

A. Well, we call it Revillagigedo channel until we get out to Clarence straits.

Q. You do?

A. Yes. Tongas Narrows belongs to Revillagigedo channel.

Q. It is the same connecting body of water and the government has seen fit to give different names to these?

A. I mean Tongas Narrows.

Q. Not when counsel asked you that question. What is the course from Whitley to Tree Point?

A. West northwest, about.

Q. West north west.

A. West north west, about; I am not sure about that. I don't know all them courses up there.

Q. No, I am just asking from your general recollection. What is the course from Green island to Whitley Point?

A. Northwest by north, I think, or close to it.

Q. And what is the course from Winslow to island according to this book?

A. I cannot—

Q. What is the proper course to pursue with your tug?

A. Northwest half west, I think, or northwest by west. I don't know that course up there.

Q. Did you know it from your experience in these waters, and your occasional reference to the Summerville Recordings, that the courses they have got in here for Alaskan waters are correct?

A. Yes sir, otherwise they would not sell them or print them, I don't think.

Q. That is not what I ask you.

A. In my mind I think they are.

Q. I ask you whether these courses tally up with your personal experience in these waters?

A. I go by them.

Q. Well, do you go by them rather than your experience?

A. No, I take it out of the chart as well.

Q. You have made five hundred round trips in Alaska.

A. I think I have in that length of time.

Q. And you have some experience of your own?

A. Yes, I have.

Q. And you have checked it up with this man's recordings, these Summerville Recordings; you naturally would do so.

A. As a help to me.

Q. And you found these courses are correct; your experience is that they are correct.

A. They are supposed to be magnetic courses.

Q. And your own experience is that you can rely on them, is that true?

A. Oh no, you cannot.

Q. Then what are they good for, if you cannot rely on them?

A. Any course, your own course, you cannot rely on that.

Q. I mean a course on the chart.

A. Well, if I look at that course there and take a notion to look on the chart and see if it is correct.

Q. Well, you have testified your experience shows that these courses are correct.

A. No, I did not.

Q. I thought you did. Then your experience has taught you these courses are incorrect?

A. They are a help, I say.

Q. And when counsel asked you if your course from Tree Point to Winslow was north west three quarters west, you said it was a proper course.

A. No sir, I didn't say that.

MR. STRATTON: North west one half west.

Q. When counsel on his direct examination, read from the book and asked you, where the course in the book was laid down from Tree Point light to Winslow, north west three eighths west, and you were asked whether that was correct and if you would pursue that course, you said yes.

A. Yes.

Q. You still say yes?

A. Yes sir. That all depends how far off. You see these courses are laid half a mile off the point, for that north west three quarters, but if you were a mile off or three quarters, that would take you too close.

Q. Where would it take you?

A. Take you into Mary Island.

Q. Take you right on the island?

A. Yes, sir.

Q. And you say these courses in this book is laid for half a mile off Tree Point?

A. Yes, sir.

Q. Then if it had that position for a departure that course would be the proper course?

A. Proper course, yes sir.

Q. And you would pursue that course, would you not?

A. Yes, I was steering that myself.

Q. Until you picked up the light, would you not?

A. Until I picked up the light.

Q. That or the fog horn on Mary Island.

A. At times it would take you right up and times it did not take you right up.

Q. When didn't it take you right up?

A. I don't know; I may come through today and take me clear of Mary Island, and sometimes it would not.

Q. Why not?

A. I don't know.

Q. As a navigator of experience you testify that you do not know?

A. I do not know.

Q. You have stated that you would follow this course from Tree Point, half a mile off Tree Point, north west three eighths west. That is what it reads, captain, I am not trying to confuse you. And yet you testify that this cap-

tain of the Commodore had the right, when he ran half of that course or ran some 12 miles north west one quarter west, and then changed his course to north west?

A. Yes.

Q. They are not both right, are they?

A. No.

Q. You would follow the book, would you not?

A. Well, but the book don't say I shall run the course. That is left for me to do.

Q. But you have already said you would run the course according to the book.

A. It don't say I shall do it.

Q. I did not say that. I asked you what you would do as a mariner and navigator. You have already testified you would run that course as stated in the book.

A. Yes, but how long I would run it I don't say.

Q. How long would you run it?

A. I would run it—it depends on how I felt about it.

Q. And the thicker the night and the dirtier the weather the more care you would use would you not?

A. Sure.

Q. And how long would you run that course before you expected to pick up the light or fog signal?

A. Depends on how dirty the weather was.

Q. In the weather given you in the statement made by counsel in his direct examination, how long would you run this north west three eighths west course from Tree Point light?

A. Until I figure myself off Black rocks.

Q. And how long would that be?

A. I guess they are six miles away from Mary Island light.

Q. That is just east of Mary Island light?

A. Southeast.

Q. Is it southeast?

A. Something like that; it is not east.

Q. That is right, south east. Then what course would you take?

A. I would haul her right northwest, or northwest half north, one of the two. All depends on how I felt about it.

Q. And how long would you run her on that second course?

A. Until I picked up the light.

Q. And if you did not pick up the light?

A. Then I would pick up the whistle.

Q. And if you did not pick up the whistle, what would

you do if the whistle was out of commission, what would you do?

A. Well, probably then I would figure myself there and head up on the next course.

Q. What would be your next course, if you could not pick up the light or whistle?

A. Head her up for Twin islands; head north west by west.

Q. If you did not pick up the light or get the whistle?

A. Yes, sir.

Q. Why?

A. In my mind it would tell me I must be there.

Q. You would just depend upon your emotion.

A. Yes sir.

Q. Purely a guess, would it not be?

A. That is half of steamboating.

Q. Now, with the tide high at Mary Island at 2:06 on the morning of March 27th—

A. That is what the book tells us.

Q. That is what the book tells you, what would be the effect, between one and two o'clock of the wind, at the velocity counsel has given it to you on direct examination, thirty miles and upwards breeze blowing from east south east?

A. The velocity of the tide?

Q. What effect would that have on the tide at Mary Island as to registering high water at 2:06 or sooner or later?

A. In an hour's time it would not rise much.

Q. It would not?

A. I should not think so.

Q. And if the wind had been blowing that rate for 12 hours how much would it rise?

A. I haven't any idea, sir.

Q. You don't know?

A. I don't know.

Q. Are you familiar with the reefs off the east shore of Mary Island, about half way between the north and south of the island?

A. There is a little bit of a reef there sticking out, yes.

Q. Have you ever been in there?

A. No.

Q. What would you do if you found your tug and tow, and with your tug going into white water there at 2 o'clock in the morning, on that northwest course?

A. Try to get her off.

Q. What maneuvers would you pursue. Just tell what you would do?

A. I would port my helm.

Q. How much would you port your wheel?

A. Until I saw myself off that.

Q. How much would you port it?

A. Well, I could not tell that, how much was necessary to port.

Q. Suppose you were going right into the breakers?

A. Two or three points.

Q. Now captain, it all depends on how you were heading as to how much you would port your helm, going in on these reefs would it not?

A. Well, as I stated before it all depends on how much it was necessary to haul her off.

Q. You said three or four points?

A. Two or three points.

Q. 22 degrees or 33 degrees, not to exceed that.

A. 11¼ degrees in a point.

Q. And if you were going at right angles to this reef into them, you would give a little more porting than that?

A. Well, if it was necessary.

Q. Would it not be necessary? Considering the bight in that island there? Would it not be necessary to give her more than two or three points?

A. Well, the bight is not so big there.

Q. There is a bight there?

A. Not to speak of.

Q. There is not?

A. No.

Q. You still say that under these conditions, going at right angles into the reef there on the east shore of Mary Island about half way between the north and south points of the island, that in order to extricate yourself from that position, you only would port your helm two or three points?

A. Well, if it was necessary to port her I would port her more.

Q. How would you determine if it was necessary?

A. I could see it.

Q. I am giving you what you could see. I am giving you the position at right angles, that is what you could see the surf at right angles.

A. All depends on how close you were.

Q. You would have to be pretty close on a dark night to see white water. On a dark, dirty, snowy night, sleet and rain, you would have to be pretty close, would you not?

A. Yes, pretty close.

Q. How close would you have to be captain, to see the surf?

A. Oh, you can hear the surf before you can see it.

Q. In a howling gale. Suppose you did not hear it. How close could you see it?

A. I never had any experience; I could not tell.

Q. The tide runs south east and northwest in there?

A. As far as I have seen it.

Q. In Revillagigedo channel?

A. Down off Cape Fox, Tree Point.

Q. Off Tree Point and further up to the north?

A. No sir, I never mentioned that.

Q. What do you know about the rest of that channel?

A. I don't know about the tide in that channel?

Q. In Revillagigedo channel?

A. No more than what I have seen four or five miles north of Tree Point.

Q. That is all you know about it?

A. Yes.

Q. You do not remember ever having occasion to refer to the Alaska Pilot, the government publication, to ascertain what it said about that current?

A. No sir.

Q. When you are in some doubt as to where your position is, did you ever turn about and retrace your course, with your tow?

A. Oh, I fool around a little.

Q. What do you mean by fooling around, the Court don't understand.

A. Oh, go slow and feel my way.

Q. How do you feel your way?

A. Well, we call it feeling our way when going slow and trying to get there.

Q. Trying to get where?

A. Where you are bound for.

Q. Pick up the other light, that is the first place you are bound for, to pick up a new point of departure. What you want to get is another point of departure?

A. Yes, sure, and that is the way we get to our destination.

Q. Now you say, with the conditions as counsel in his direct examination has given you, and you were in on that shore with the wind and sea as stated—

A. Yes.

Q. And in towing the barge, you would put your wheel two or three points to port?

A. Yes sir.

Q. What else would you do in your maneuver?

A. Well, I would let her go out on that two or three points course for a little while.

Q. That is all, is it. That is the only thing you would do, would simply be to change your course?

A. Yes, I don't see anything else to do.

Q. Nothing else at all?

A. No sir.

Q. And if other navigators or experienced men, having knowledge for years and years, as long as yourself—

A. If I saw it clearing me that was enough to do.

Q. If other navigators with the experience extending over the same period of time as yourself, or practically so, testify that the thing to do is to give a signal to your tow that you are about to change your course, you would not do that?

A. No. A good man on the tow can see for himself, and he is supposed to be there on the bridge, as well as on the tug.

REDIRECT EXAMINATION:

Q. (Mr. Stratton). Now the course, from Tree Point of north west one half west and the course northwest three eighths west, would there be any substantial difference?

A. Yes sir.

Q. There would be?

A. Well, one course is a magnetic course and the other course is compass course.

Q. Now will you explain the difference there?

A. North west three eighths west is magnetic course and north west half west is compass course.

Q. (Mr. Gorham). How do you know?

A. The deviation tells me.

Q. What deviation?

A. Deviation on the compass.

Q. On your compass?

A. Of the compass that is on board the ship; the difference between the two courses, compass course and magnetic course.

Q. What is the difference between compass course and magnetic course, the difference between the deviation of the deviation?

A. Yes, the deviation in the compass on board the vessel.

Q. On what do you assume that deviation to be?

A. The deviation is easterly.

Q. How much.

A. Well, two degrees, in the compass they steered by.

Q. (Mr. Stratton). On this compass?

A. Yes, sir.

Q. Assuming that the deviation in the compass on the Commodore was about two degrees, the course north west one half west by the compass, and north west three eighths west on the magnetic, would be the same?

A. The same course, yes.

Q. (Mr. Gorham). Now I will ask you if that deviation is a constant deviation at the cardinal points of the compass, that two points that you say was ship's deviation, that would be a constant deviation?

A. No, it changes for every point, probably a degree.

Q. What would it be when the ship was heading north?

A. I don't know.

Q. What would it be when the ship was heading north west, if you know?

A. According to his course there was two degrees.

Q. I am not saying by his course. He might have been on a wrong course. What do you know of the deviation of his compass?

A. I would not know unless I saw his card.

Q. You haven't seen the card?

A. No.

Q. And you do not know any more about it than I do.

A. Not until I see the card.

Q. So you do not know whether his north west course was magnetic course or compass course or what it was, of your own personal knowledge?

A. No, but I presume it is.

Q. You assume it is, without any facts.

A. No, but I was asked the question.

Q. You are assuming that if that was his true course and his compass only deviated two degrees on that course, that would be the same as the other course, that is what you are assuming, is it not? In other words, captain, given the true magnetic course, if his compass only deviated two degrees on that course, why then he has the right course, north west, that is what you mean, don't you?

A. Yes, he has got to steer that to make that course good.

Q. If he has a deviation of ten points, what would be his course? You have got that book of courses, the proper course as down in that book, and if the deviation of the Commodore's compass is ten points, what would he have steered?

A. South southwest.

Q. He said the compass was ten points off. Tell me,

captain, you would not average more than a round trip a month with your tug?

A. I have made as high as six trips, round trips, a month.

Q. With a tug?

A. Yes sir.

Q. For how many months?

A. Fourteen months. On the tug Escort, going to Taku inlet.

Q. Six round trips a month?

A. Three I mean, six ways.

Q. Three round trips a month.

A. Yes.

Q. For how many months?

A. Thirteen months I was on her.

Q. At any other time in your experience, did you make more than one round trip a month?

A. Twice.

Q. Now when was the other time, when you made two round trips a month. How many months did you make two round trips?

A. That I don't know.

Q. Ten years or one year?

A. Five or six years, I should think.

(Witness excused, and later recalled for further examination.)

Q. (Mr. Stratton). Captain, assuming that when the tug found herself close to Mary island and she put her helm hard aport, so as to cause the tug to go at right angles to her former course, and at that time the shackle belonging to the barge, attached to the barge, broke, what would you consider was the cause of the breaking of the shackle?

A. It could not have been strong enough.

Q. It was an improper shackle for the use for which it was used.

MR. GORHAM: I object as leading.

A. It was not strong enough.

Q. I will ask you whether or not it is usual or customary for tug boats plying between here and southeastern Alaska waters, and through Revillagigedo channel, to give signals when the tug is about to change her course?

A. No sir, at least I don't.

Q. (Mr. Gorham). You are employed by Griffiths & Sons?

A. I have been for the last three or four months.

Q. You are now, are you not?
A. No sir.
Q. When did you leave their employ?
A. I left their employ on the 24th of August.
Q. Have not been employed by them since then?
A. No sir.
Q. Are you going back into their employ?
A. I do not know, sir.
Q. Any engagement to do so?
A. Not at present.

(Witness excused).

CAPTAIN E. W. SMITH, a witness called pursuant to the foregoing stipulations on behalf of claimant, being duly affirmed, testified as follows:

Q. (MR. STRATTON): Where do you reside?
A. Seattle.
Q. How long have you resided in Seattle?
A. Since 1887.
Q. What is your business?
A. Master mariner, I suppose you would put it.
Q. How long have you been a master mariner?
A. Well, I have three issues of five year license. This is the fourth issue. I do not remember the date. But to be on the safe side I would say 17 years.
Q. About seventeen years?
A. Yes sir.
Q. And prior to that what experience have you had on the sea?
A. Well, I was one year in deep water, in a small schooner. Practically one year. Not exactly. From May until the latter part of November. The balance of the time on Puget Sound.
Q. And Alaskan waters?
A. Alaskan waters I have only been for the last two years.
Q. What has been your occupation during the last two years?
A. Well, since last April, the 26th, I think somewhere along about the 26th, I would not state positively the date, but since that time I have been pilot, at the present time for the Japanese line, the steamers of the Mitsui company. Previous to that for two years or nearly two years, from June until the time I quit along about the last of April, would be two years, I was running up north there.
Q. Over what waters?

A. Principally between Seattle and Anyox and Anyo and Hadly.

Q. And would that take you through Revillagiged channel?

A. Hadly and Ketchikan, yes.

Q. What vessels have you plied on on Revillagiged Channel?

A. Tow boats exclusively.

Q. What kind of tugs, ocean going?

A. Well, you could say they are, that they are ocea going.

Q. Ocean going and inland?

A. We used them inland, when I was on them, but the have been since and previously at sea.

Q. What position did you hold on the vessel while yo were plying through Revillagigedo channel?

A. My official position was second officer, signed on a second officer, but acting as pilot. But my position o these two vessels was master. That is I was master fo the owners. I run the boat and looked out for it, paid th bills and such as that; master's position.

Q. What was the character of the tows that you too through that channel?

The comprised barges. I could enumerate most of them The Barricado, Baroda, Gen. Fairchild, St. David, Henr Villard, John C. Potter. And I have towed the Bango It did not belong to that concern now. And also some fla bottomed scows, two of them. And one of them at leas the Pioneer belonged to the Scow and Gravel Co. No. 1

Q. About as near as you can recollect, how many trip did you make through that channel, going north?

A. Well, I could not very well say. You mean roun trips, I presume?

Q. Yes sir.

A. Well, in that two years I should judge somewher around in the neighborhood of perhaps fifteen. That i not positive, that is just a mere recollection. It would b somewhere in that neighborhood.

Q. Was there a towing machine on board of the tug?

A. Yes sir, both tugs that I was on had towing ma chines.

Q. Are you familiar with the Commodore, have yo been on board of her?

A. Yes, sir, I have been on board of her several times

Q. Have you seen the towing machine on board tha tug?

A. Yes sir, I have seen it several times.

Q. Did you notice its character and make at the time hat you were on board?

A. Well, to a certain extent. It was the same make as he ones that we had on the boats that I was on. I believe t was a size smaller, but it was the same make.

Q. State whether or not from your experience you are amiliar with the waters of Revillagigedo Channel?

A. Well, as far as the usual track followed by tugs with arges in tow say from Tree Point to Ketchikan, I consider hat I am familiar with it.

Q. Do you remember what the course is, the proper ourse is from Tree Point to Mary Island light?

A. I could not tell you the magnetic course exactly, but know approximately what it is.

Q. Well, state as near as you can recollect.

A. I should say about northwest one quarter west, or orthwest half west possibly. I am stating that from emory, of the course that I steered on the last tug that was on.

Q. Well, will you take this chart which we will mark laimants' exhibit No. 4 for identification and state what he proper course would be.

A. You must remember that that is left entirely to he different individual's ideas.

Q. That is to say the course would vary according to he distance the vessel was off Tree Point.

A. Yes sir.

Q. Take it at half a mile from Tree Point.

(Witness measures on the chart).

A. That is about as near as I could get it with these ulers. If you take it a half a mile off Tree Point the ourse would be northwest half west.

Q. Assuming the state of facts that the Commodore was owing the Bangor, laden with approximately one thousand ons of cargo, the tow being attached to the tug by means of steel hawser, one end of which was fastened to the towing achine on the tug, and the other end of which was fastened o a shackle, a wrought iron shackle made fast to the anchor hain of the barge. That the tug passed Tree Point at 1:19 a. m. *(sic)* on March 26th, 1917, and was a half a mile ff the shore. That there were frequent snow squalls, that he weather was dirty, that it was raining more or less nd sleet; that the wind was from the southeast or east outheast, blowing at the rate of thirty miles an hour and pwards. That the tide was high at Mary Island at 2:06 . m., that the tow was properly following. That the tug as making seven and a half knots per hour over the ground.

That the tug picked up the Tree Point light at 11:19 a.
(sic) and continued on that course at seven and a half kn
an hour until one o'clock, the course being northwest one-h
west, and that at one o'clock the tug slowed down to ab
half speed and changed her course to northwest and ran
that speed until 1:45. Assume that the deviation of
compass was two degrees, between one and two degr
that is, the compass on the tug, and that at 1:45 a. m.
tug not being able to pick up Mary Island light, found h
self close to Mary Island or close to the shore of the li
island immediately east of Mary Island. I will ask
whether or not the course steered was a proper course?

A. Well, in my estimation—what was the deviation
say, from one to two degrees?

Q. Yes, from one to two degrees.

A. You do not know whether it was easterly or weste
Well, in my estimation that would be the proper course
steer.

Q. Do you remember what courses you steered betw
these points?

A. I could not tell you exactly, for the reason that it
been some time. But according to our compass we stee
northwest five-eighths west. I think that is the course,
I would not swear to it. I know at times we have stee
that.

Q. You can tell by using the rulers whether that
the proper course or not, the course that I have given y

A. Northwest half west?

Q. Yes.

A. I have already verified that. In my assumption
is the proper course.

Q. But in my question I assumed, or rather stated
he ran on that course northwest one-half west from 1
p. m. until 1:00 o'clock a. m. which would be an hour
forty-one minutes at seven and a half knots an hour, t
he pulled the vessel over to the north a half a point so
she would run directly northwest, and continued from
o'clock until 1:45 at half speed. Now, can you say, with
using the dividers and rulers that that was a proper co
to go?

A. He was unable to see the land?

Q. He was not able to pick up the light on Mary Isl
or see the land.

A. I think under the same conditions that I would
the same thing.

Q. Now, what explanation can you make of the

that he found himself close to Mary Island at 1:45, to what do you attribute that?

A. Well, there is two causes in my estimation that could bring that about, and one of them is he had bad weather and was caught by an unknown current, something that it is impossible for us to know about; and the other one would be that owing to the vessel rolling around in the night time and the man on watch unable to steer a true course, that he might possibly vary that much owing to the vessel swinging around so much. There are two possible causes that I know of.

Q. Would the wind have any effect on the course, the wind being from east southeast or southeast or thereabouts?

A. The wind coming so far abaft the beam, in my estimation should not be the cause of altering the course in there. It should not cause her to drift or make any noticeable leeway that I would consider.

Q. I will ask you whether you ever had any similar experience in running up there?

A. Well, I will say this, that in my experience in running up there that is a very few times, I will say safely six times that we laid the course and that course brings us exactly where we expect it to without being thrown either way, I mean one way or the other.

Q. Is that Revillagigedo Channel a difficult place to navigate?

A. That particular stretch from Tree Point to Mary Island in thick, rainy or misty and snowy weather, or foggy weather I consider one of the most difficult ones that we have.

Q. Why?

A. Owing to the low rocks, black rocks on one side and the rocks from off Duke Island on the other and the rocks being very low and you cannot see them on a dark night. And any way you go there is no way that you can tell when you are there safely for that reason.

Q. Now, what was the proper thing for the master of the tug to do when he found himself close on to the island?

A. Well, the proper thing for any master to do or any officer in charge of the deck or any steamer making land there on his port bow, would be to port his helm as much as necessary to clear the obstruction, whatever it might be.

Q. Now, suppose the master ported his helm hard over so as to make a change in his course of ninety degrees and assume that the barge did not port her helm, what would be the course of the barge, would it be from the island or to the island?

A. Well, it would depend a great deal on what they did on the barge.

Q. Suppose they did nothing?

A. Oh, nothing? Well, it would swing as the strain came on the tow, but she would gradually swing.

Q. To the right?

A. To the right, but unless her helm was ported also I would judge, in my estimation she would run out the track of the tug—do I make that plain?

Q. (Mr. Gorham): In other words, she would not follow the tug?

A. Yes. Of course as long as they stayed together with that wire cable they could not get more than the distance of that wire apart, but I mean that she would not follow that track.

Q. But would the barge go to the right or to the left of the track of the tug, would she cut across the corner?

A. If her helm was not ported she would go, we will say on the outside of the circle, or the tug, if the tug ported her helm she would make a circle and the barge would make another circle around. That is what I mean.

Q. If you had been master of the tug running up as close to Mary Island as stated, what would you have done?

A. Well, in similar circumstances when we had made the land directly ahead, which has happened many times, we have starboarded or ported, whichever was necessary, to clear that obstruction.

Q. Now is it customary for tugs plying between here and Southeastern Alaska through that channel, to give signals to the barge to port her helm when the tug ported her helm, or is it not?

A. Speaking of my own experience, occasionally we do. For instance, in this particular case, we will say that we are going along here and we pass very close to some floating obstruction, we will say, or possibly we will say it was a rock or something, but some obstruction. Now, we know very well if the barge continues on she has a very good chance of hitting it, possibly we miss it if we go straight on, and the barge may be off our track a little and she might hit it. In that case we would blow her a whistle.

Q. State whether or not the blowing of the whistle when the tug changes her helm is a matter largely in the judgment or discretion of the master of the tug or wholly in his discretion?

A. Yes sir, it is wholly in his discretion, unless I am to speak of my own experience and not of other people's.

Q. Now, assume in all of these questions also that the

r line was 180 fathoms, would that change any of your swers? I forgot to include that in my question, but I ll now.

A. The only bearing that would have on the case that I ıld mention at the present time, would be this, that if I ısidered myself close in to shallow water, we will say ı, twelve or fifteen fathoms or something like that on that rticular coast, it would to this extent. I would be more less worried about that wire going to the bottom and tting hooked onto the rocks, but outside of that that of any obstruction. It would be a secondary considera-n.

Q. Do you know whether or not it is customary for gboats plying in the waters mentioned to use a log in the ter to determine the speed of the ship?

A. Yes sir, we had one but did not use it. We had both of our tugs, but did not use it.

Q. Do the other tugs that you know use them at all in se inland waters?

A. None that I know of. I will say of passenger amers as well.

Q. Do not use them?

A. That is, I never seen them used.

Q. You are familiar with the working of towing ma-nes, are you, Captain?

A. Yes sir.

Q. And the same kind of towing machine that was on Commodore?

A. Yes sir, the same make.

Q. What is the purpose of a towing machine?

A. Well, the purpose of a towing machine is to make ushion and keep any undue strain from the hawser. That it cushions on the steam and by winding in and letting ut it saves any undue strain or the opposite effect.

Q. Equalizes the strain?

A. It equalizes the strain, in other words.

Q. If a towing machine of the kind that you have men-ıed is properly working and the tug Commodore had put helm hard over so as to cause the ship to go at right les to its former course, I will ask you whether or not ler the circumstances here that I have mentioned there ıld be any sudden jerk on the hawser or the shackle t is attached to the barge or to the hawser?

A. Nothing more that I know of than would be the essive amount of steam that the automatic valve would n up as she became wide open if there was enough strain

to do so. Outside of that, any other undue strain, there is no way that I can account for that.

Q. Would that be a sudden jerk or a gradual strain up to the highest point?

A. Well, you could say in two ways. For instance these towing engines are double engines and the cranks are set at ninety degrees. Now you can readily see that when the cylinder is full of steam the valve would be wide open and she is full of steam, the other engine would be practically nothing. Now, when that crank would be in that position, the position of these two cranks above and below, there would be more strain on that hawser and it would take more to pull that hawser out against that steam pressure of both cylinders at that particular time than it would if there was only one. That is the only strain that I know of.

Q. Would that be an unusual or undue strain or would it be one that might be expected to have in towing between the tug and the tow on the hawser?

A. I should think that would be the same, because the same thing takes place. For instance if we should wind in on the hawser, and we did that with our steamer, we pull the tow up to us under a full head of steam, that is, we would put on a full head of steam and wind it up and that would bring the strain on, and as I tell you the engines would work like that (showing).

Q. Would the strain that you have just mentioned or the strain that would be occasioned by the tow putting her helm over so as to cause the tug to go at an angle of ninety degrees on her course, be as quick or sudden or as unusual a strain as would be occasioned by the seas. For instance, the seas coming from ahead and bumping up against it?

A. Yes sir, I should imagine that would be greater.

Q. Which?

A. The strain would be greater, making a right angle turn.

Q. However great the seas might be?

A. If the sea is there, the same seas would affect it there just the same in my estimation.

Q. Well, I don't get you now whether or not the strain in making the turn by the tug would be as great or greater. I mean the suddenness of the strain would be as great or greater than caused by the seas bumping up against the tow.

A. I understand what you mean. That would be getting it down so fine that I really could not answer you

intelligently on that. I have no way of measuring that strain and never have had.

Q. Do you know what the usual custom is as to the size of the shackle used in these waters on barges of the size of the Bangor?

A. I could not say as to that, sir.

CROSS EXAMINATION

Q. (By MR. GORHAM): Were you subpoenaed, Captain, to attend this hearing?

A. Well, I don't know.

Q. Were you served with process?

A. No sir.

Q. You are working for Griffiths & Sons?

A. Yes, they are my employers.

Q. Have they any tugs of their own?

A. I think not at the present time, sir.

Q. They have barges?

A. Yes sir.

Q. They require tugs?

A. Yes sir.

Q. They are now engaged in chartering tugs to tow their barges?

A. Yes sir.

Q. And one of these tugs is the British tug Commodore, is it not?

A. Yes sir.

Q. Your owners sent you over here to this hearing?

A. No sir.

Q. Who sent you over?

A. Nobody sent me over.

Q. How did you happen to drop in?

A. Mr. Stratton asked me to come. I would like to correct that statement. They have one towing steamer, the Amur, doing towing.

Q. And they also have the Commodore?

A. She is under charter. But I mean of their own.

Q. How long have they had the Commodore under charter?

A. I could not tell you that.

Q. Approximately?

A. I could not tell you. It would be mere guesswork on my part. I know nothing about their business at the present time.

Q. When you are using that automatic towing gear you set the machine for a certain head of steam, don't you?

A. No, the head of steam on our machine, we had to reduce the valve on our machine. We reduced the steam to seventy pounds. And when it is set it has what we call the big iron brake band that goes around the drum on the machine, and under ordinary conditions we tow on that.

Q. It is set, is it not?

A. It is a brake that clamps rigid.

Q. It is rigid, there is no give to it?

A. There is no give to it.

Q. To the tow line?

A. No sir.

Q. And don't take in the tow line?

A. No.

Q. Like putting it around the bitts?

A. Yes sir. That is used only in smooth weather ordinarily.

Q. You mean the waters of Southeastern Alaska as distinguished from the ocean?

A. Yes, surely.

Q. But if you were towing with a brake on and had it set in the waters of Southeastern Alaska, when you got out in the ocean you could put the automatic on?

A. In certain places in Southeastern Alaska as well.

Q. Whereabouts?

A. For instance, going through Seymour Narrows down as far as Salmon River.

Q. Anywhere else?

A. In Queen Charlotte Sound and Millbank Sound.

Q. Now, you say it would be impossible to tow with a wire hawser without a towing machine?

A. I would consider it so, yes sir.

Q. Then do they not tow on Puget Sound with wire hawsers without towing machines?

A. Not that I know of.

Q. I wish you would look at the chart and ascertain how far it is from Tree Point to the little island in the middle of Mary Island as shown by the scale, how many miles is that?

A. This would be accurate enough, this particular scale.

Q. Just the distance on that course from Tree Point to the island just above the figure "12" on the chart.

A. As near as I can get at it here it would be eighteen miles.

Q. And the distance from Mary Island light to Tree Point is nineteen and a half miles by the book, is that right?

A. Yes sir.

Q. If she departed from Tree Point at 11:19 and arrived at that little island at 1:45, how much would she be making over the ground, average?

A. She would be going 7.17 knots plus.

Q. Over seven knots an hour?

A. Seven knots and a fraction carried out.

Q. Now, this log here of the captain shows that he left Tree Point at 11:19 and when she had gotten to this little island and made that turn it was 1:45, and that is where the hawser parted. If she was going seven knots an hour plus on an average for that whole distance, then if she slowed down the last forty-five minutes to five knots an hour, she must have been going considerably over seven knots an hour the first part of that course, must she not? In other words, if she was going at seven plus and she decreased the last forty-five minutes, she would increase the one forty-six minutes, would she not, necessarily?

A. Sure, it must.

Q. Now, you say that the tow under the conditions that counsel has given here, where the tug came up to the island and had put her wheel over, that the tow following would make a larger circle than the tug had made?

A. Yes sir.

Q. And if she was going seven knots an hour at that point and the tendency would be still greater to make that larger circle, would it not?

A. Yes sir, but then there would be a limit to that.

Q. But I mean the tendency would be?

A. Yes sir.

Q. Of course there were always limits, they never could go further away than the length of the hawser.

A. No.

Q. And the faster she was going on that larger circle the sooner she would arrive at the point where the tug changed her course by the porting of her wheel.

A. Surely.

Q. And the physical conditions that you testify, as a master mariner you would have given the signal to the port in order that she might port her helm and aid in extricating herself from that position, from the dangers of it, I mean, there are some dangers.

A. Surely.

Q. That would have been what you would have done?

A. I will not say in that particular case, sir.

Q. But you do say that by reason of the tow making a larger circle and if the speed was over five knots an hour, then she would reach the same point, or cover the ground

of the tug quicker—the master of the tug could not control these physical conditions by his own discretion, could he?

A. No sir.

Q. And it would not be a matter of the master's discretion, it would be a matter of the master taking into consideration the physical conditions and in looking for the safety of his tow, would it not?

MR. STRATTON: I think that question is purely argumentative. I will object to it for that reason.

A. That is what the whistles are blown for at times.

Q. And when you get into a position of danger with the tow, you take every precaution, more precautions than otherwise, don't you?

A. Try to.

Q. That is good seamanship, is it not?

A. Try to, sir.

Q. And how would the helmsman on the tow know what the whistles were for?

A. It is customary amongst barges that I have been towing, they have a signal card and the tug carries one likewise and the barge. It is not compulsory, it is merely a matter of convenience, and likewise safety. But for instance in towing vessels from the sea they generally try to put aboard a towing card. Not such a particular one as I speak of. But generally such as three whistles to take in sails and so forth.

Q. Cast off and so forth. But they do have on these cards generally the signals for porting or starboarding the helm.

A. Yes sir.

Q. Now, you say that the action of the sea in heavy weather is a strain upon the line, upon the hawser?

A. Yes sir.

Q. More than in towing in smooth water, I mean?

A. Yes sir.

Q. And given the action of the sea in heavy weather making a strain upon the hawser, you would have an additional strain to that, would you not, if your tug suddenly put her helm hard over to make a change in course of ninety degrees?

A. Well, I answered that quesion in a way before. That is getting it too fine for me to tell. That towing machine will take up that strain when that automatic is on. I answered it I think as clear as I could, sir.

Q. That automatic is on for the purpose of taking up the slack and letting out?

A. Taking up any undue strain and slack.

Q. For slacking away or taking any undue strain that comes with the heavy seas.

A. Yes sir.

Q. That is what you call undue strain?

A. Yes sir.

Q. Now, if you have superadded to that the strain coming from the tug changing her course to ninety degrees will your towing machine take it up?

A. It should.

Q. Will it?

A. It always has, in my experience. That is as far as I can go.

Q. Do you always keep the steam on your machine?

A. When there is any occasion for it.

Q. What are the occasions for it?

A. Well, the occasion for it is going through, as I speak of, any swift waters.

Q. Seymour Narrows?

A. Seymour Narrows or heavy tide rips, and as I say any strain, like going through Queen Charlotte Sound and Millbank Sound, heavy swell and also Dixon's Entrance.

Q. I will ask you how fast this machine will take up the slack, this automatic machine with the steam on?

A. It depends on how slack.

Q. Just tell us the difference.

A. Well, for instance, what we term "slack," if the tide gets in the hawser and the hawser goes down any lower than it is under ordinary towing conditions, now we call that slack. Now, it will depend, as I said before, it will depend upon the bight, the extent of the bight that gets in it, how fast.

Q. In other words, if the bight is greater it will work faster.

A. Yes sir.

Q. That is, in order to take up that slack quickly, is it not?

A. Yes sir.

Q. If you should be going at seven knots an hour through the water and suddenly reverse on your tug and stop the tow would come up and overtake you?

A. Yes sir.

Q. Would your machine take up that slack as fast as the tow came?

A. I am not qualified to answer that only my experience would be that she would not do it. I never had that particular thing happen to me.

Q. I am using that as an illustration is all. Now, what would make the ordinary bight in your tow line greater?

A. Under what conditions, sir?

Q. Well, you were towing along with this barge and this tug and the cargo on her, at seven knots an hour, and you have a certain segment of a curve there or bight. Now, what will increase that bight?

A. By stopping the steamer.

Q. What else?

A. Putting the helm hard to port or hard to starboard

Q. How much would it increase it in that case?

A. Depends on how far you swing the vessel ahead.

Q. Ninety degrees, how much would that increase that?

A. I never had occasion to do that, I could not tell you.

Q. Never had?

A. I never had in going seven knots an hour, I never made a right angle turn, to my knowledge.

Q. Well, what is your best judgment that it would increase that bight?

A. Well, it would increase it considerably.

Q. And would the automatic take up that increase?

A. Partially. I hardly think it would take all, for this reason; here comes the circle and then the hawser has a bight directly down beside that.

Q. It comes in a spiral.

A. Where the tug comes through the water here there will be that circle and that will be in this shape, for instance, and out here it would be fifty feet below the water and up here nothing, so that it would not come all at once. In other words, I do not know that I can make that plain.

Q. Yes, I understand what you mean.

MR. STRATTON: The strain would be gradual?

A. Gradual.

Q. Yet in twenty-five fathoms of water there would be no danger of touching ground.

A. I have had mine strike bottom at forty fathoms.

Q. I mean under the conditions that I have said.

A. No. But I could not say as to that. It would depend upon the weight of the tow and also the power of the tug and the size of the wire.

Q. Well, I have given you the size of the wire and given the tug and the tow.

A. I would say it would depend—

Q. Under these conditions what would it be?

A. I do not know because I have not towed with that particular sized wire.

Q. Coming from Tree Point north to Mary Island light, your object in making Mary Island light is to give you a point of departure?

A. Yes sir.

Q. And it is necessary to pick up that light?

A. Yes sir.

Q. Or the horn?

A. Yes, that is the same thing as the light.

Q. And if you run off your course and had not picked up the light, on a dirty night, what would you do?

A. Well, previous to getting to the light, my experience is to slow the vessel down and when I have run what I consider the distance made good, I consider that I have made that distance good, and in that case I would turn around.

Q. What would you do then?

A. I would slow the vessel down and hold her head to the sea, in other words, ease to.

Q. And wait for daylight?

A. Knowing that we were absolutely safe by any means, you understand, because you can get into trouble that way just as well as the other.

Q. But it is a method used?

A. It is a method that is used.

Q. And it is used for safety?

A. Yes sir, safety.

Q. And as master of a tug what is your first responsibility? The safety of the tug or the tow?

A. The tow comes first, and our boat second, always.

Q. And what would you say of a navigator who allows his tow on the little island off Mary Island at 1:45 a. m. in the morning, and leaves it there, and takes his tug around to the customhouse and anchored there until the next afternoon?

MR. STRATTON: I object as not proper cross examination. There is no allegation in the libel that there is any negligence on the part of the tug or officers or crew after the shackle broke. And furthermore these are not facts shown by the evidence in the case. The evidence shows from libellant's own witnesses that the tug immediately after it ascertained the shackle had broken, turned around and tried to get a hawser on board the barge, but she was so close to the shore that he could not reach her. That is the testimony of the captain of the barge himself.

MR. GORHAM: No, he could not see her.

MR. STRATTON: I object as not a proper question and it is immaterial.

Q. What would you say with regard to his seamanship? You stated that the tug's duty is to the tow first. What would you say as to the seamanship of the master who would do that which I have stated?

MR. STRATTON: I renew my objection.

A. A man that abandons his tow without trying to do everything possible for the crew and the vessel and also the property as well—I would consider showed lack of good judgment as a seaman.

Q. I am not asking you to pass your opinion on Captain Johnson. I am only giving you a hypothetical case.

A. Yes sir.

REDIRECT EXAMINATION

Q. (MR. STRATTON): If you had been in Captain Johnson's place on the Commodore that night, running on the courses and for the time I stated in my previous questions to you, would you under the same circumstances have turned the vessel around before 1:45 that morning

A. It is impossible for me to answer that question intelligently. I was not there. I want to tell you, it may be of some benefit to you. I was lying in Ketchikan that particular night and that night I had occasion to shift my own boat from one dock to another in a blinding snowstorm that it was almost impossible to see further than the corner of that building.

Q. How far is the corner of that building?

A. I should judge it would be about 125 feet, I do not know how far it is.

Q. Now, that night, as you knew the conditions of the weather at Ketchikan, would it have been safe for the master to have turned his tow and tug around, in view of Black Rock and other rocks around there and take a course to the southward and try to go over the course that he had come up?

A. If he had gone beyond Black Rocks I would much rather take my chances doing the way that he done.

Q. Do you know, considering the circumstances, of anything that Captain Johnson or the officers and crew left undone that they should have done?

MR. GORHAM: I object to the witness answering the question. He does not know what Captain Johnson did and therefore he could not tell.

MR. STRATTON: He knows what Captain Johnson did do.

A. Well now, of course, this came from Captain Johnson and also from Captain—

MR. GORHAM: I do not care what was told you.

A. I base my judgment on that.

MR. GORHAM: We do not want that.

Q. What you know from the questions asked you here, the statement of facts, was there anything left undone that should have been done?

A Nothing that I know of, no sir.

Q. I want to ask you whether or not it would have been dangerous to the tug and tow that night if he had gone beyond Black Rock, and come south again?

A. I would consider it extremely dangerous.

Q. In turning around he would lose his bearings naturally?

A. Not only in turning around, but in turning around and going back, perhaps he has got a much longer distance to run to pick up Tree Point, a much longer distance and if he was out a little bit before he turned around, and in turning around he was adding a little bit more, he might hit the rocks. I would consider that he would be in danger of getting too close to these rocks. And if he was by them I would consider it poor seamanship to turn around and go back by them after having once gotten by them.

Q. Well, was there anything to indicate to the captain that he was off the course or that he would not be able to pick up Mary Island light?

A. There is no reason why he should know. There are very few courses of twenty miles length that I know of in Southeastern Alaska that you are not liable to change your course.

Q. Well, would you consider it bad judgment on the master's part under the circumstances mentioned, to try to pick up Mary Island?

A. Decidedly not. I was in the same circumstances myself.

Q. What did you do?

A. I picked it up, definitely.

Q. Now, Captain, if the tug changes her course only two or three degrees to the north, when she picked up the island would that put any strain on the hawser at all?

A. Two or three degrees or two or three points?

Q. Two or three points.

A No undue strain, should not be any undue strain on two or three points, should not be any undue strain on the hawser.

Q. Now, assuming that the vessel or the tug did change her course by putting her helm hard aport when she found that she was near the island, and the shackle broke, the barge's shackle broke, to what, would you as an experienced master, attribute the breaking of that shackle?

A. It would be utterly impossible for me to make more than a mere guess. I have known shackles to stand a heavy strain and then break off just simply by dropping them on the deck; so in that particular case I could not tell you. I would like to relate a circumstance where I have seen a ring bolt where I had seen a load lifted many times from the deck and this particular time it was lifted the link pulled right out of the ring, a piece rather, one piece pulled right out and the load crippled a dear friend of mine very bad.

Q. Well, in your opinion, how long is a shackle supposed to tow a barge and be strong enough to stand the strain even if the tug did put her helm hard aport and go off at an angle of forty-five degrees.

MR. GORHAM: I object to that as incompetent and immaterial.

Q. Especially where there was a towing machine on the tug?

A. My experience and education along these lines is that we furnish gear to the barge that we are towing, whatever it may be, and we are only responsible for our own gear and not theirs. So in that case we may advise them at times, but it is up to the barge people how they make that hawser fast.

Q. But what I am trying to get at is what you as a seafaring man would attribute the breaking of that shackle to, would it be attributed to something that the tug did or to the inherent weakness of the shackle itself?

A. It seems to me that I have answered that as well as I can answer it. It is impossible to tell what broke that particular shackle, I am sure. As a matter of fact, that shackle may have been previously, may have had an undue strain at some previous time and partially cracked it and at that particular time it may not have broken, but when any undue strain came on it afterwards it might.

Q. Do new shackles through constant use crystallize so they became weak?

A. I have a Government report on that to show that is customary in most all Government vessels to anneal eir chains, their anchor chains and shackles, about every ree years. It is not the custom on board of merchant ips, but they become more or less crystallized.

Q. (MR. GORHAM): If you had run out your course ere and had not picked up the island or the light, you tes- y that you would try to pick up the island?

A. You said the light, didn't you?

Q. I said if you did not pick up the light, if you run ur course out and did not pick up the light—

A. Yes sir.

Q. Then it would be good seamanship to endeavor to k up the island?

A. No, I think not, not the island itself. Not in the ght.

Q. I mean under these conditions.

A. I would not try to pick up that island if I cannot k up the light, I have no show to pick up that island, in estimation. Of course when I spoke of the island I ant the light. The light is on the outside end, furthest the outboard side. That is what we mean by that.

Q. But you would not endeavor to turn around and start toward the island under a slow bell to try to pick up the and?

A. Not the island. I would turn off. In fact I have, some unknown reason, I have got too far to the east- rd, and I might starboard my helm a little bit and try pick up the light, providing it was nearly my time to k it up, and its visibility was far enough to allow me, t I would consider that I could do that.

Q. What would be the visibility of the light, do you ow?

A. My recollection is that on a dark clear night, why, I nk I have seen that between eight and ten miles.

Q. And in a snowstorm what would it be?

A. That would all depend on the density of the snow.

Q. Well, snow squalls.

A. Well, in between snow squalls you could probably it two or three miles. It all depends, you know.

(Witness excused)

PTAIN J. E. BRINKER, a witness called on behalf of the CLAIMANTS, pursuant to the foregoing stipulations, being duly sworn, testified as follows:

Q. (MR. STRATTON): What is your business?

A. I have followed the sea.
Q. Are you a master mariner?
A. Yes sir.
Q. How long have you been a master mariner?
A. I have a master's license and have had since 1910
Q. What character of vessels?
A. On inland and ocean waters.
Q. How long have you been following the sea?
A. Following the sea since 1899.
Q. What, if any, experience have you had in the waters of Southeastern Alaska and especially Dixon's Entrance and Revillagigedo Channel?
A. I know the waters up there since about 1901. I have been running up there both as an officer and as a seaman.
Q. Have you been employed in tugs in these waters?
A. Yes sir.
Q. What has been your experience on tugs over these waters?
A. Well, I have towed up there for two years steady the last two years.
Q. As the master of a tug?
A. As pilot. And I have made several trips in between. The last two years steady.
Q. Approximately how many round trips have you made through that channel?
A. Well, that is hard to say. I should judge a couple of hundred.
Q. By reason of that experience are you familiar with the waters of that channel?
A. I certainly am.
Q. What has been the character of your tows?
A. Towing barges.
Q. Are you acquainted with the barge Bangor?
A. Yes sir.
Q. Have you ever towed her?
A. I don't just remember whether I have towed her or not. I have towed some similar to her.
Q. Are you acquainted with the tug Commodore?
A. Yes sir.
Q. Ever been aboard of her?
A. Yes sir.
Q. Have you seen her towing machine?
A. Yes sir.
Q. Have you ever operated a towing machine on your own tugs?
A. A great many times.

Q. Have you operated any towing machines of the same make as that on the Commodore?

A. I believe hers is a Canadian make, but the principle is all the same.

Q. What is the character of the waters of Revillagigedo Channel with reference to their being uncertain or dangerous?

A. Well, I have found in my experience up there, you never really can figure the set of the current there. We have found ourselves a great many times where we had to haul and change the course. The currents around there are not regular or steady at all. There are no tabulated currents, that I have ever seen in these waters. The Government tries to give you a current chart where there is a set current, but I have never seen any on that.

Q. But on a dark and stormy and windy night how do you navigate that channel from Tree Point to Mary Island light?

A. Well, we try to follow our own course in there, after we have gone a certain distance, the main thing is to pick up the light on Mary Island.

Q. But if the night is so thick you cannot do it, what would you do?

A. Well, we feel our way along and do the best we can towards picking up that light.

Q. It is a matter of judgment on the part of the master as to what he will do?

A. Entirely so.

Q. How are the waters a half a mile away from Tree Point, are they of sufficient depth for safe navigation or otherwise?

A. Yes, safe.

Q. How are the waters up around Mary Island, safe or unsafe for navigation?

A. I should figure half a mile safe around Mary Island.

Q. What is there between Tree Point and Mary Island light with reference to obstructions?

A. Well, there are black rocks and whale rocks.

Q. About how far are they apart?

A. I should judge about three or three and a half miles.

Q. They lie in which direction from Mary Island?

A. Southerly.

Q. About how far from Mary Island are Black Rocks?

A. About five miles.

Q. Now, Captain, assuming this state of facts, that on the 26th of last March, the tug Commodore had in tow the

Bangor, laden with about a thousand tons of cargo. The barge being connected with the tug by a steel hawser belonging to the tug, one end of which was attached to the towing machine on the tug and the other end of it attached to the shackle which was in turn attached to the anchor chain of the barge. Assuming that the tug and barge reached Tree Point at 11:19 p. m. and the tug and barge were at that time half a mile off the shore, and the tug picked up the light on Tree Point. That at that time there was a strong wind blowing, which increased to thirty or more miles an hour, blowing from the southeast. That there were frequent snow squalls and it was raining and more or less sleet and the weather was dirty. And the tide at Mary Island was high at 2:06 a. m., the wind blowing from the southeast or east southeast, the tow properly following. And going north at the rate of about seven and a half knots an hour. And that the course from Tree Point was northwest one-half west. The deviation on the compass of the tug being about two degrees. And that the tug continued on that course and at that rate of speed until 1:00 o'clock a. m. and proceeded on that course one hour and forty-one minutes, and then the tug slowed down to half speed and changed her course to northwest and continued on that course until 1:45 a. m., that is forty-five minutes, at which time the tug found that she was close to Mary Island or the little island just east of Mary Island and upon such discovery the master of the tug caused the tug to change her course two or three points to the north so as to escape the island. I will ask you whether or not under these circumstances the course taken by the tug was the proper course to take?

A. Why, I should say it was. I guess so, somewhere around northwest half west, and he had two degrees deviations, I should think that was the proper course to take.

Q. If you had been master on that tug what would you have done under the same circumstances? Would you have done any different than what the captain of the tug did?

A. Well, that is hard to tell. I hardly think that I would have. I think I would have done the same thing. That is just our judgment as it takes us when we arrive at that point.

Q. Would you say that he exercised good or bad judgment?

MR. GORHAM: I object as incompetent and immaterial. The witness is not sufficiently conversant with the facts and does not know what the man actually did. If you want to make a hypothetical question I have no objection

Q. Considering the facts as I have given them would you consider that the master exercised good or bad judgment?

A. Why, he slows down and I should consider that he uses good judgment.

Q. To what do you attribute the fact of him not being able to pick up Mary Island light and found himself at 1:45 close to the island?

A. Well, there are several things. The set of the current and the way the barge was steered and the way his own vessel was steered.

Q. I think you said these currents were uncertain.

A. Yes sir.

Q. Is it possible for a master of a tug to judge the velocity and character or location of these currents up there?

A. No, I do not believe it is. I never have seen a man that could.

Q. Now, assuming that the tug when it found it was close to the island, put her helm hard aport so as to change the course of the vessel ninety degrees, what effect would that have upon the strain of the hawser?

A. Well, when she came around there naturally there would be some slack and that would come in and as the hawser came in, as she tightened up of course there would be some strain on that.

Q. But with a towing machine?

A. With a towing machine that ought to take up that strain, the vessel going slow and that machine working automatically. It is for that special purpose.

Q. If the shackle broke when the tug put her helm hard aport, what in your judgment would be the cause of the breaking of the shackle?

A. It was not strong enough, I should say.

Q. What do you mean by saying it was not strong enough? That it was not strong enough to withstand the strain that it should be expected to withstand?

MR. GORHAM: I object as leading.

A. Well, I assume when you put a line aboard a vessel and the gear that you take hold of is strong enough for that use. This shackle should stand the same strain as the tow line.

Q. I will ask you whether or not—or what the custom is in Southeastern Alaska waters with reference to the tug giving signals when she changes her course.

A. Why the three different tugs that I have towed up there in, the first two we had no signals, until the last tug I was in we towed nothing but our own barges, and we did have a private set of signals between these two.

Q. What is the custom, do you know?

A. The custom—I do not think I ever heard of any signals until I came to this company. When we went to towing barges that is the only time that I have ever seen the signals.

Q. What company was that?

A. With the Griffiths Barge Company at that time.

Q. What company are you with now?

A. I am indirectly with them right now. Will be with them the first of the month.

Q. Do you know whether or not it is usual or customary in these waters to use a log in the water for purposes of determining the speed of the vessel?

A. I have never seen a log used in these waters.

Q. And what would you say as to the custom, whether that is the custom to use them or not?

A. It is not customary. I have never seen them used there. And I have run up there a great many years.

Q. Under the conditions and circumstances that I have related, state whether or not in your opinion it was good seamanship on the part of the tug to do as he did?

A. I cannot see where he could have done any different. I do not see that there is a chance for him to do any different.

Q. Do you know whether or not the use of the shackles is liable to crystallize it so that it becomes weak and apt to break with a small strain?

A. It is very apt to.

MR. GORHAM: I object to that as incompetent. The witness has not testified as to his competency as to steel and iron. And I move to strike the answer.

(Objection sustained by the Court)

Q. Have you towed with shackles?

A. Yes sir.

Q. Have you ever seen any of them break?

A. Yes sir.

Q. What caused them to break?

A. Well, we would suppose it was deterioration.

MR. GORHAM: I object to the question and move to strike the answer as not responsive.

Q. What would be the cause of the break in your opinion?

MR. GORHAM: I object. The witness is not competent to give an opinion on the question.

(Objection sustained by the Court)

A. We assumed it was crystallized.

MR. GORHAM: I move to strike the answer as not responsive to the question. The witness's testimony is simply based upon an assumption.

Q. Have you ever seen any shackle break when there was no unusual strain put on it?

A. Yes sir.

Q. Where was that?

A. That was in Alaska.

Q. Just give the circumstances of that.

A. We were crossing from Cape St. Elias to Cape Hitchinbrook with the barge Columbia and we had very bad weather out there, a head sea and head wind and all the time that we were out there that shackle held, and when we got to Hatches Harbor, just before coming to anchor the shackle carried away. It stood all the strain on the ocean where the sea was rough, but when she was inside it let go.

Q. Do Black Rocks stand high above the water or are they low?

A. They are low.

Q. Are they easily discerned?

A. No, they are very hard to pick up at night.

Q. What would you say with respect to the danger to the tow and the tug, if the captain of the Commodore after he had passed Black Rocks, had turned around and straightened out and tried to go back on the course that he came up?

A. I never would do that myself. I would think it was more dangerous than going ahead.

Q. Now, under the circumstances and conditions that I have given you, would you have done any sounding prior to 1:45 that morning?

A. No, I certainly would not.

Q. Why?

A. Well, a man has all he can do to look out for the vessel and he has to look out for himself without trying to fool around with the sounding machine. Most of them don't have any sounding machine, and only have a hand line.

Q. Would it be practicable to use a hand lead on these waters?

A. No, a hand lead would not cover it.

Q. Now, is there any siren or horn up there on Mary Island?

A. Yes sir.

Q. Where is that located?

A. In the light house.

Q. With the wind blowing thirty miles an hour and upwards, as I have said, would it have been possible, in your opinion, to hear that horn at a point abreast of the center of Mary Island?

A. Well, that is hard to say. It is very doubtful if you could hear it with the wind blowing southeast.

Q. I will ask you whether or not you know if it is a frequent occurrence for a tugboat in making the distance between Tree Point and Mary Island not to be able to pick up the light, and find himself close to Mary Island so that he is obliged to put her helm over in order to clear that.

A. Yes sir.

Q. Have you had that experience yourself?

A. Yes sir, several times.

Q. And found yourself close to the island?

A. I have found myself close and then I have found myself away out here, and I would haul in to pick up the light.

Q. And you attribute that to the uncertainty of the currents?

A. Well, the set of the current or bad steering of the barge.

Q. Is it possible under these conditions of weather and the conditions of the tide, and the conditions that I have given, for a master of a tug to make that course with certainty so as not to go up in to Mary Island there?

A. I do not believe it is.

Q. Under the circumstances that I have given you, can you state that the master or officers of the tug left anything undone that they should have done or did anything that they should not have done, to prevent the barge going ashore, after the shackle broke?

A. I cannot really think of anything that they have done wrong, from what I have heard.

Q. You would consider the actions of the officers of the tug good seamanship, skilfull and prudent?

A. I would.

CROSS EXAMINATION

Q. (MR. GORHAM): What is the first duty of the tug to his tow, Captain?

A. Why, to take care of it as much as possible.

Q. Then when it comes to a question between the tug and the tow, do you take care of yourself first and the tow second, or do you take care of the tow first and yourself second.

A. Well, if it is possible to take care of the barge and yourself also why you will do that, but if the conditions are such that you cannot, which has been the case several times, where they had to abandon the tow.

Q. I did not ask you that question. I asked you where there was a necessity of election as between yourself and the tow, which gets the benefit of that election?

A. He would have to save the tug because if he lost that he would lose them both.

Q. They did not in this case, did they?

A. No, but it was a question of whether the safety of the tug or the safety of the barge—why, if he lost the tug he would lose both, anyhow.

Q. So he would save himself first, would he?

A. Depends on what the conditions were, yes.

Q. Well, under the conditions that you have heard described here, his duty to his owner as master of that tug, comes first and his tow second?

A. No, he is not—

Q. What is his duty?

A. His duty is to save life and property. We take that oath when we get our license.

Q. I will ask you what the duty of the master of the tug is as regards his own owners and the owners of the tow?

A. Why, I don't know, I never seen any special duty about that. You take your oath—

Q. I did not ask what you took in order to get a license, I am asking you when actually operating a vessel out there in the sea.

A. Well, the laws of self-preservation come first, I imagine.

Q. And you would save yourself first?

A. Certainly.

Q. You would get out of that with a whole skin first and if the tow can get out of it with a whole skin, that's all right, that is your idea?

A. Well, the pride of all towboat men always is to save his tow.

Q. But not to the extent of risking his own skin?

A. Oh yes, we risk our own skins lots of times.

Q. I have not any doubt of that, the records show but your idea is to put your owners first and the t second?

A. No, I did not say that.

Q. What is their relative position?

A. I say he has to use his own judgment. If a m can save that barge it is his duty to save it.

Q. That of course is a simple proposition, there is question about that. How far is he going to endan himself.

A. To the extent that he must not injure himself. has no right to go beyond reason. He has a crew th under him that is entitled to their lives as well as hims

Q. You spoke about hearing a horn. Who hears horn on the tug?

A. The man in the wheelhouse.

Q. The man in the wheelhouse?

A. Yes sir.

Q. Is he the only one that hears it?

A. Well, he will hear it nine times out of ten bef anybody else.

Q. And the tenth time who hears it?

A. I don't get your idea.

Q. You say that nine times out of ten the man in wheelhouse will hear it first, but how about the tenth ti

A. I do not know who would hear it if he cannot h it—it is hardly ever heard by anybody else.

Q. The man in the wheelhouse?

A. Yes sir.

Q. And you think it is good seamanship, under conditions and the weather as existing, as shown by questions put to you, in this channel, for a man to dep upon his hearing the horn in the wheelhouse, do you?

A. Why, it is the only thing that we have.

Q. That is the only place that you can put a man to h the horn?

A. Yes sir.

Q. You do not know where you have got, you have off your course and failed to pick up the horn or the li and you would stay in the wheelhouse and wait until heard?

A. Judging from the time he gave he had not run his course. He said the vessel had run for an hour forty minutes, and he could not have run the time out that.

Q. But if he had run two hours and forty-six minutes, at 7.17 knots an hour, he had run his course out, had he not?

A. I have not figured it.

Q. I want you to figure it out. Two hours and forty-six minutes at 7.17 knots an hour.

A. Well, he should have gone twenty miles in that length of time if he made that.

Q. If he made that during all that time he would have gone twenty miles?

A. Yes sir.

Q. He would have run his course out from Tree Point to the light?

A. Yes sir.

Q. And he ought to pick up the light or the horn?

A. Well, yes.

Q. And going that fast over the ground in this stormy, black night, you think he did his duty if—if he put his helm over and came in to the little island off Mary Island, you think he did his duty by changing his course to ninety degrees.

A. Well, that all depends on conditions there, just as a man feels about these things. I know when you come into something in front of you you probably would put your wheel over. It all depends on how you feel about going clear. You are going to put your wheel over enough to clear the island.

Q. If you thought it was necessary you would change it to ninety degrees?

A. If I thought it was necessary I would make the changes at the time.

Q. And if your judgment required ninety degrees change you would take it?

A. I would, certainly.

Q. And if you were going that fast over the ground there would be some strain on your line, would there not after you did take that change of course?

A. There might be a little, but with a towing machine I think it would be very little.

Q. You said if the vessel was going slow and had a towing machine that you did not think that there would be hardly any strain. I ask you if the vessel was going 7.17 knots an hour?

A. Oh, there would be very little. I do not see that the strain would be very much greater.

Q. That is your judgment of it?

A .Yes sir.

Q. You are willing to risk your reputation as a maste mariner and a navigator upon that statement?

A. With that towing machine I am, yes sir.

Q. And having run his twenty miles at full speed, o having gone over the ground at seven knots plus an hou until he had run nineteen or twenty miles and had n picked up the light or the horn, what do you think his dut was then?

A. Well, that is his judgment. I myself have run fo Mary Island and had run the distance out and did not fin anything or hear anything and I turned around, if th weather was such that I could and tried to hold on unt daylight.

Q. With the weather as we have detailed it this nigh

A. Well, it depends on just how your tow was actin

Q. If your tow was properly following.

A. I would watch that closely and see if I could loca something, some kind of a point, because you have to careful as you are getting up into bad water.

Q. You would put your lead out. You do not kn where you are and have not picked up anything and y do not know whether you have passed Mary Island?

A. I would try to hold on until daylight.

Q. And you would come about on the opposite cour going back on the track that you came. That would good seamanship, would it not, Captain?

A. It would.

Q. Specially considering the fact that there were known currents in this channel and that you were ignor of these currents, the set of these currents, it would be the more necessary for you to take all precautions?

A. That is the duty. He slowed down at 1:00 o'cl

Q. That was the other question. We are getting the other proposition that he did not slow, Captain. T he run out the course of nineteen miles in two hours forty-six minutes, according to his logbook, which w be seven knots an hour plus, and if he was ignorant of currents, the unknown currents there and he did not k how these currents were setting, that it would be his to take all the more precautions.

A. It would.

Q. What other precautions would he take?

A. Well, for one thing he could do, he could slow d and try to pick up something.

Q. Well, if he did not pick up anything, if he had the course and had not picked up anything.

A. I should say if the conditions were such tha

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could—that is a matter of judgment at that time. The man is there and he has got several things to consider. I personally would slow down and turn around and go back over the course that I had come.

Q. Now, you say you would not heave your lead?

A. Well, the reason I say that is the soundings around there are irregular. And a hand lead is only a hundred fathoms, if I remember rightly, and you see on the chart here a place that is 190.

Q. But it is a black night and you do not know where you may be in fifteen fathoms when you have not picked up anything.

A. It is pretty hard in fifteen fathoms you are getting pretty close to the shore.

Q. Off this island there are fifteen fathoms?

A. Possibly.

Q. And twelve fathoms?

A. That is pretty close in when you get to twelve fathoms.

Q. You do not know where you are and you have not been able to pick up anything and he has run his course and he did not know whether he was on the spot on the chart marked twelve fathoms just east of that little island or not. He did not know where he was. Do you think that it would have been a precaution for him to heave the lead?

A. If he had a sounding machine I would.

Q. And if he had a hand lead?

A. A hand lead would not do much good.

Q. Would it hurt?

A. It would be no hurt.

Q. Would not that be an extra precaution?

A. That would.

Q. And is he not bound to take every precaution to save his tow under such conditions?

A. Yes sir.

Q. Now you say half a mile off Mary Island is safe?

A. Yes sir.

Q. Fair weather?

A. Well, I have come up there a great many times half a mile off and I never considered—

Q. When you could see the island?

A. When I could see the island.

Q. But if you cannot see the island and you have got the wind astern of you, a fair wind of thirty miles and upwards an hour, you would not consider approaching Mary Island within half a mile good navigation?

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A. Well, yes, I would, because you have got to pick up something. You cannot go past that point. You have got to pick it up.

Q. Don't you pick up that light about three miles abreast of it?

A. Mary Island light is a poor light to pick up. It is one of the poorest that we have in Alaska to pick up.

Q. But you can pick it up within three miles?

A. Yes, on a reasonable night you can.

Q. You can pick it up a good ways further than that on a reasonable night?

A. Yes.

Q. But on a dirty night can you not pick it up three miles?

A. I have been closer than that and I have not seen it. I would not say how close. That is hard to say.

Q. So you withdraw your former testimony that a half a mile was safe for you?

A. I say you may see the light that distance. I did not say it is not safe.

Q. Do you think it was safe?

A. As long as you are off Mary Island a half a mile.

Q. How do you know you are half a mile off?

A. That is it.

Q. You do not know?

A. No, but you must find that. You must pick that island up. You cannot proceed without picking up that island.

Q. If you cannot see the light or hear the horn what do you do, do you go in towards the island?

A. I might feel my way cautiously into the island.

Q. Then when you saw the skyline or the blackness of the mountains you would know that you are near the island?

A. That is true. That is what we do very often. We run in and pick up the light. We quite often stand in.

Q. Would you sound your whistle to get an echo?

A. Why, if it was foggy I certainly would.

Q. And if it was snow squalls what would you do?

A. In snow squalls I would do what the law calls for.

REDIRECT EXAMINATION

Q. (MR. STRATTON): Now Captain, if from 11:[illegible] until 1:00 the vessel had been going at the rate of seven and a half knots an hour, how many knots would she have made or miles I mean, would she have made going seven

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nd a half miles, by 1:00 o'clock. That would be an hour nd forty minutes. That would be twelve miles and a half.

A. Approximately. Twelve miles exactly.

Q. Now, if at 1:00 o'clock the vessel slowed down to alf speed and was going not to exceed five miles an hour, ntil 1:45, then she would go under slow speed how many iles?

A. Forty-five minutes?

Q. Yes.

A. Well, she would go 3.75 miles.

Q. That added to the twelve and a half miles would e sixteen and a quarter miles.

A. Yes sir.

Q. And the distance from Tree Point to Mary Island ght is how many miles?

A. About twenty miles. Nineteen and something.

Q. Then she would not have gone her course, would ie?

MR. GORHAM: I object. He is cross examining his wn witness. He has taken a chart there and has drawn a oint half a mile off Tree Point and to the little island here he says is nineteen miles.

MR. STRATTON: I am speaking of the light.

MR. GORHAM: That is further to the north than that.

MR. STRATTON: That is what I say, the light is venty miles.

Q. Do you know?

A. It is twenty miles. We always call that twenty iles.

MR. GORHAM: He says it is approximately twenty iles and then he says it is twenty miles.

A. It is nineteen and one-half miles, to be absolutely rrect.

Q. Now, under these circumstances, Captain, and the essel having run to 1:45 and having gone sixteen and a uarter miles, if you had been the master of that vessel ould you have heaved your lead?

A. No, I would not.

Q. Or taken any soundings?

A. I do not think that I would.

Q. Or would you have turned back on your course?

A. I certainly would not.

Q. Would you have done otherwise than the captain the vessel did in this case, as you understand, set forth om the questions propounded to you?

IN CENTER

A. As I understand them I would not. He slowed down after he had gone twelve and a half miles—that is what a man would do if he was running with caution.

Q. (MR. GORHAM): But if his own log showed that he had made that little island, nineteen miles from Tree Point, in two hours and forty-six minutes, that would indicate that he had not slowed down, would it not?

A. Well, that all depends a good deal on what the weather was.

Q. The same weather all the way.

A. I suppose that he would make more across there probably than he allowed.

Q. Yes, but you told us and you figured it out yourself that it is nineteen miles, in two hours and forty-six minutes.

A. Twenty.

Q. When I asked you to put the ruler on the chart you marked it nineteen miles.

A. I never did that.

Q. I apologize. I wish you would take the chart and put the ruler on and figure a point a half a mile off of Tree Point due west, to the little island off Mary Island. Just above the fathom mark "12." The island is just above that. Figure out how far that is from Tree Point half a mile off.

A. That is about right.

Q. Figure from that point to the little island just above the "12" and see how many miles that is.

A. Eighteen miles.

Q. (MR. STRATTON): From the little island which is abreast of Mary Island, what would you make the distance between Tree Point and Mary Island light?

A. You want it from the island?

Q. From the little island to Tree Point.

A. You want the position off the island? That is two miles.

(Witness excused)

CAPTAIN O. OLSEN, a witness called on behalf of the Claimants, pursuant to the annexed Stipulations, being duly sworn, tesified as follows:

Q. (MR. STRATTON): Where do you reside?

A. Seattle.

Q. How long have you lived in Seattle?

A. Since 1888 I have lived on the Sound?

Q. What is your business?

A. A seafaring man.

Q. Are you a master mariner?

A. Yes sir.
Q. How long have you been a master mariner?
A. Oh, for about fifteen years I should say.
Q. Prior to that were you a seafaring man?
A. Yes sir.
Q. For how many years?
A. Well, I started to go to sea in about 1884.
Q. Have you been master of tugs?
A. Yes sir.
Q. During what time?
A. Well now—
Q. After you got captain?
A. I have been master of tugs about fifteen or sixteen years.
Q. On what waters have you plied?
A. Well on Alaskan waters for say about ten years. The rest of it on Puget Sound.
Q. What has been the character of the tugboats that you have been connected with?
A. Towing barges.
Q. Ocean going tugs?
A. Yes sir.
Q. As master of tugs towing barges in Southeastern Alaska through Revillagigedo Channel, how many round trips, approximately, have you made through that channel towing?
A. That is a hard question to answer.
Q. You can figure that up?
A. Oh, probably between one hundred and one hundred and fifty.
Q. During what period of time?
A. Well, during the time that we went up to Skagway we made the round trip.
Q. During the last ten years or five years you made these?
A. I started in 1897.
Q. Are you master of a tug at the present time?
A. No.
Q. Are you a pilot?
A. No.
Q. You are not employed at this present time?
A. No.
Q. When was the last trip that you made up there through that channel?
A. In the month of August.
Q. This year?
A. This year.

Q. Have you been through that channel going north in the night time any time?

A. Yes sir.

Q. With a barge in tow?

A. Yes sir.

Q. During any of these trips have you been unable to make Mary Island light?

A. Oh yes.

Q. On any of these occasions when you found your location or bearings, have you found yourself right close up to Mary Island?

A. I have.

Q. What did you do when you found yourself in that position?

A. I hauled off.

Q. For what purpose?

A. To get clear of the island.

Q. And how much would you haul off, Captain?

A. It all depends on how close I was, what position I was in.

Q. You would haul off enough to get off the island?

A. Yes sir.

Q. Are you familiar with the currents, do you know what the currents are up in that channel, what the condition of these waters is?

A. Why, it is pretty rough waters.

Q. Are the currents the same always?

A. No.

Q. What is their condition in that respect, to what extent are they uncertain, the currents?

A. They might be probably one to two knots.

Q. That is the speed of the current that you are speaking of?

A. Yes sir.

Q. From your experience running through these waters are you able to know what the currents are at a given time?

A. No.

Q. Are they the same always at the same stage of the tide?

A. No sir.

Q. How different are they?

A. That I could not tell.

Q. Is it possible for you with your experience in these waters to determine what effect the currents are going to have on your vessel in going north?

A. No.

Q. I am referring to this channel. At the same stage

of different tides, state whether or not the vessel is always set in the same direction?

A. No.

Q. Are you acquainted with the tug Commodore?

A. Yes sir.

Q. Have you seen her towing machine?

A. I cannot say that I have.

Q. Do you know the barge Bangor?

A. I know the barge Bangor, yes.

Q. Now, assuming that on the 26th of last March the Commodore was towing the barge Bangor which was laden with about a thousand tons of cargo. That the tide was high at 2:06 a. m. on Mary Island. That the barge was connected to the tug by a wire hawser belonging to the tug 180 fathoms long, one end of the hawser being attached to the towing machine on the tug and the other end of the hawser attached to the shackle belonging to the barge, which shackle was attached to the anchor chain on the barge. Assume that the tug and tow were a half a mile off Tree Point and that the tug picked up the light at that time on Tree Point. That the wind was blowing a stiff breeze at that time and continued to increase in velocity until within the next couple of hours or so it reached thirty miles an hour and upwards, which wind was blowing from the southeast or east southeast. That the tow was properly following. That there were frequent snow squalls and it was raining and sleeting and the weather was dirty and the tug reaching Tree Point at 11:19 p. m. on the 25th of March. That she continued from that time until 1:00 o'clock a. m. on the 26th of March on a course from a point a half a mile abreast of Tree Point, northwest one-half west, at a speed of seven and one-half miles an hour. And that at 1:00 o'clock he slowed down to half speed and changed her course to northwest and was running until 1:45 a. m., forty-five minutes, at which time she found herself close upon Mary Island or upon the little island immediately to the east—you know that little island do you?

A. Yes sir.

Q. I will ask you whether or not under these conditions the tug steered a proper course?

A. Yes sir, I think she did.

Q. How do you explain the fact that the tug found herself at 1:45 close to Mary Island?

A. Well, the wind and the current had an effect upon her and drove her over on the island.

Q. Was there any way that the captain could have possibly guarded against being sent over onto that island?

A. I do not see any way.

Q. Have you had practically the same experience as the captain of the Commodore had?

A. I have. I did not go ashore.

Q. But you mean you have been sent up against the island?

A. I have been sent up against the island.

Q. Why were you sent up against the island?

A. The current got me out of the way of the wind.

Q. Was there any way that you could have prevented that?

A. Not that I know of, no sir.

Q. On these trips when you were sent up against the island did you exercise your very best skill and judgment act with the greatest prudence in making that voyage in the channel?

A. Yes sir.

MR. GORHAM: I object as leading. Counsel is leading the witness all the time.

Q. Are there any obstructions in that channel that are dangerous to navigation?

A. Black Rocks up there.

Q. Are there any others?

A. There are quite a few rocks around there.

Q. Are Whale Rocks in that neighborhood?

A. Whale Rocks—

Q. Where are they located?

A. They are big rocks.

Q. About how far apart are they, do you recollect?

A. I could not say. I never measured that.

Q. Now, if the tug went seven and a half miles an hour from 11:19 until 1:00 she would have gone a distance of twelve and a half miles. Then she changed her course and if she proceeded forty-five minutes, or until 1:45 at the rate of say about five miles an hour, she would have gone on that course 3.75 miles and these two together would make 16.25 miles. Would good seamanship in the operation of that tug require any soundings to have been taken before 1:45?

A. I do not see that soundings would be any good there it would be too deep water.

Q. Or would good seamanship and skill and prudence require any blowing of the whistle to get echoes?

A. Yes, providing it is thick weather.

Q. Well, the weather was thick. Would it be customa

or usual in a case of that kind for a vessel to try to get echoes or not?

A. I always try to.

Q. Do you know whether other captains do or not?

A. I do not know.

Q. State whether or not you would have tried to get any echoes before 1:45 that night when you were only about sixteen miles—

A. There was no place to get an echo before you had run sixteen miles.

Q. State whether or not if you had run on this course only sixteen and a quarter miles you would have tried to get any echo?

A. Well, we always blow whistles as we go along but we had only run sixteen miles and we were not up to the island yet then.

Q. How many miles is it from Tree Point to Mary Island light?

A. Nineteen or twenty miles.

Q. How many miles would you have gone on this course before you commenced to get any echoes?

A. We would not get any echo until we were close to the land on Mary Island.

Q. That would be how many miles?

A. It depends on where you strike Mary Island. It is twenty miles to the light.

Q. Under these same circumstances, Captain, state what you would have done in going from Tree Point, to endeavor to make Mary Island light that night, under the conditions of weather and sea as I have stated?

A. I do not think I should have done anything else.

Q. Than what?

A. Steered my course.

Q. Anything else than what this captain did?

A. He ran out the distance and I think he would pick up the whistle or the horn.

Q. Would you have turned around and gone back on your course?

A. No, I do not think that I would.

Q. Have you operated a towing machine?

A. I have.

Q. What is the purpose of a towing machine?

A. Why, it is supposed to put an even strain on the line at all times, take in and pay out.

Q. What effect does the towing machine have upon the strain when the tug Commodore say, changes her course

ninety degrees to the east by putting her helm hard aport. What effect would that have on the strain of the hawser?

A. It would not have much effect, if anything.

Q. State whether or not the change of that course to ninety degrees, with a vessel going say at seven and a half miles an hour, would have made any sudden jerk or sudden strain on the shackle or towing line?

A. It should not if there was steam on the machine.

Q. I mean if the machine was in operation.

A. It should not, if there was steam on.

Q. If the tug changed her course when she saw Mary Island, only two points to the north, state whether or not there would have been any extra strain or sudden strain upon the hawser.

A. No.

Q. Now, if when the tug reached Mary Island she put her helm hard aport so as to turn the vessel ninety degrees to the east and without the barge porting her helm, the shackle broke, what in your opinion would be the cause of the breaking of the shackle?

A. The shackle was not strong enough.

Q. State whether or not in your opinion the shackle should be strong enough for ordinary and usual use to withstand a strain that would be put upon it by the towline of the tug by putting her helm hard aport to ninety degrees, what would you say?

A. I could not say, it all depends on the power of the boat.

Q. State whether or not in your opinion the shackle in use should have been strong enough to withstand any strain that might have been put upon it by turning the tug ninety degrees to the east?

A. I don't get that question.

Q. I say, state whether or not in your opinion the shackle should have been strong enough to hold, and not break, when the tug was turned ninety degrees to the east if it was turned that way, in view of the fact that the tug had a towing machine and the tow line attached to it and the shackle being broken or not broken?

A. Why, I do not see why it should break, more than anything else.

Q. State whether or not if you know it is customary in the waters of Southeastern Alaska to use a log for the purpose of determining the speed of the vessel?

A. I never did.

Q. Do you know of others that use it?

A. I do not.

Q. State whether or not it is usual or customary, if you know, in towing in Southeastern Alaska for the tug to whistle warnings or notice when the tug changes its course?

A. I never do.

Q. Now, if this vessel, the Commodore, had gone sixteen and one-quarter miles or thereabouts on the course I have mentioned, in view of the storm prevailing that night and the wind blowing from the southeast, would that tug have been able to get the sound of the horn at Mary Island lighthouse?

A. I could not tell you.

Q. What is your opinion about that, with the wind blowing thirty miles an hour and upwards?

A. You could not hear the horn very far with a wind like that.

Q. That would be a distance of over three miles, with the wind blowing, do you think they could have heard it on the tug that distance?

A. I do not think so, against the wind, no.

Q. Under the conditions that I have stated can you point out any neglect or anything that the master of the Commodore ought to have done that he did not do?

A. No.

Q. In your opinion under the facts stated was his judgment good or bad?

A. I think his judgment was good.

CROSS EXAMINATION

Q. (MR. GORHAM): You made your last trip in August?

A. I believe it was August.

Q. Who were you working for then?

A. On the Kingfisher for James Griffiths.

Q. You are waiting to take another vessel for them now?

A. I am offered a vessel.

Q. You say the currents there are not the same on different days?

A. I have not found them the same.

Q. You have found they are not the same?

A. We have found that they are not the same.

Q. And you have no knowledge of the currents because you find them different at the same stages of tide on different days?

A. Yes sir.

Q. So you haven't any knowledge of the currents?

A. No sir.

Q. How can you tell that the currents are one or two knot currents?

A. I do not know that only I see on the chart they are put there.

Q. Now, if you were coming up on the tug Commodore with a tow like the Bangor, a thousand tons of cargo on her, with 180 fathoms of hawser out, and passed Tree Point at nineteen minutes past 11:00 at night, bound for Ketchikan, in dirty weather and ran out eighteen miles after leaving Tree Point and had not picked up the light or heard the horn and you could not see anything what would you do?

A. I would slow down.

Q. Where would you expect to find yourself after you had run eighteen miles, considering the uncertainty of the currents and your lack of knowledge of the currents, from a half a mile off Tree Point?

A. Towards Mary Island.

Q. How near would you be?

A. The distance up there as stated before is twenty miles, that is, up to the light.

Q. And if you had run eighteen miles and had not picked up anything and not knowing the set of the current you would not know where you were?

A. No.

Q. You would not know whether you were pretty close to shore or several miles from shore?

A. No.

Q. And by reason of your lack of knowledge as to your then position, you would take every precaution, would you not, for the safety of your tow?

A. Yes sir.

Q. What is the duty of the tug relative to the safety of its tow? What do you consider the duty of the tug relative to the safety of the tow?

A. Use all precautions that I know how.

Q. Is the tug first or the tow first?

A. The tug is first. It is all the same. I try to take the tug and the tow in the same way.

Q. And you would not knowingly go into danger where you could not extricate yourself quickly, with a tow?

A. Not if I could help myself.

Q. What means would you take to help yourself where you were in waters of this character where you did not know the currents, what would you do? You had run your eighteen miles out and had not picked up anything?

A. In foggy weather I would keep my whistles going.

Q. With the weather that we had, snow squalls and heavy fresh breeze of thirty miles or over, a black, dirty night and you had run eighteen miles up from Tree Point and had not picked up anything at all.

A. I would slow down as slow as I could and keep going to try to pick up something.

Q. What good would slowing down do?

A. Well, I don't know, it would help along.

Q. Suppose you were right close to the island, in on these reefs in the middle of the little island on the east shore, you could not tell whether you were there or not?

A. No.

Q. Would a log help you or a heaving lead help you any?

A .A log would not. If you have a hand lead the water is too deep there.

Q. But there is twelve fathoms shown on the chart here near this little island, outside of Mary Island.

A. That is pretty close in.

Q. Well, it's a half a mile.

A. I never used a lead in that particular place

Q. But the use of the lead would help when you are in a place of danger?

A. Yes, if the bottom is even.

Q. If there was twelve fathoms of water you would think you were getting in pretty close?

A. Yes sir.

Q. So that if you heaved the lead and found twelve fathoms that would be some aid to you, would it not?

A. I suppose it would.

Q. You would consider it good seamanship in taking a departure from Tree Point a half a mile off, on that kind of a night and running two hours and twenty-six minutes, going over ground at the rate of seven and a half knots an hour, eighteen miles, that is going at the rate of 7.17 knots an hour or miles an hour. Would you consider it good seamanship on that kind of a night with a tow of that character and you were running 7.17 miles an hour to run eighteen miles, would you consider that good seamanship to run eighteen miles at that rate of speed that night?

A. If he was sure of his speed.

Q. If he was sure of his speed, but you say you are not sure of the currents?

A. No.

Q. The currents might set you over?

A. Yes sir.

Q. So it would not be safe to run that speed if the currents set you over?

A. Well, I do not know, I would not say whether it was or not.

Q. Why would you not say? I ask you whether or not it would be good seamanship to run on that kind of a night with that tow at a speed of seven miles and over, for eighteen miles.

A. Yes, sir, if you had not heard anything.

Q. You would be perfectly safe, not knowing where the current would set you?

A. Yes.

Q. And if it transpired that at the end of that run, either by reason of the currents or the seaway or his compass or some other fault, he pulled up on the island with his tug, you would not consider then, looking back on these facts, that he had done right? It would be evident that he had not done right?

A. Yes sir.

Q. Now, don't you know, Captain, that it is unusual in a heavy sea for a tug to make a ninety degree turn without signalling to the tow?

A. I have never done it.

Q. You never had occasion to do it?

A. I never had occasion to do it.

Q. And if you had occasion to do it would you not signal to the tow and have the tow obey your signal to ease up the strain that would be brought about by making such a turn?

A. Not if the towing machine worked. That is supposed to take the strain off the tow line.

Q. Whatever strain there was would it not ease the strain up if the tug could by signalling the barge to port her helm at the same time that you ported yours?

A. I do not know that it would.

Q. And you say that if you were abreast of the island to the eastward of it and the wind blowing at thirty miles that you could not hear that horn?

A. Abreast of it.

Q. You did not mean that?

A. I did not say that.

Q. You could hear the horn if you were abreast of it?

A. I would not say whether I could or not.

Q. Don't you think you could?

A. There were times probably, but I cannot say that I have heard it three miles.

Q. In a heavy wind?

A. No, I would not say a heavy wind.

Q. You say that you can hear the horn three miles if the weather is still?

A. Oh yes.

Q. And yet if you do not know where you are, if it is so that you cannot see, and you run eighteen miles you would keep your whistle blowing, would you not?

A. I would.

Q. To see if you could pick up something. You might be five miles off and you might be a quarter of a mile off the island, and you would blow your whistle so that if you were a quarter of a mile off you would get your echo?

A. Yes sir.

Q. You would take more precautions on a dirty night in a channel of this character where the currents were unknown, than you would on the same kind of a night in a channel where you knew the currents?

A. I do not see why I would.

Q. The currents would not have any effect?

A. I take precautions wherever I am.

Q. You would take more precautions if the currents were unknown to you than if they were known to you, necessarily?

A. I do not know, in places where the current is the same—

Q. I did not ask you that question. I asked you, assuming that you took a certain degree of precaution where you knew the current, you would take a little greater precaution where you did not know the currents, the dirty weather being the same in each case?

A. In dirty weather I take precautions wherever I am at.

Q. You think it is one of the currents under the conditions that counsel has stated that brought the Commodore over to this little island?

A. I do not see what else it could be.

Q. And knowing the conditions and being ignorant of the currents would be all the more reason for your using every precaution, would it not, as a good sailor?

(Witness does not answer).

Q. What speed would you expect of your tug, if you were towing a barge like the Bangor with a thousand tons of cargo on her, or your hawser was 180 fathoms out?

A. I do not know.

Q. Why don't you know, Captain?

A. I do not know what power the Commodore has got.

Q. What speed would you expect under ordinary circumstances when you are making a tow of that kind?

A. I have that figured at seven or eight knots with the Kingfisher.

Q. With 180 fathoms of hawser out?

A. Yes sir.

Q. In that kind of weather would you think it proper?

A. I could tow at that speed

Q. Would it be proper?

MR. STRATTON: I object as incompetent, irrelevant and immaterial; there is no negligence charged on account of speed, and it is improper cross examination.

Q. Would you consider it proper seamanship to go at that speed that night?

A. Why, yes, as long as I thought I was safe.

Q. You would not know whether you were safe or not if you could not see anything or pick up anything?

A. I had my departure.

Q. But you had run eighteen miles and had not picked up anything. Would you still think that you were safe going at that speed?

A. We would slow down of course.

Q. Now, you say that you think the shackle should have held. That it should be strong enough to stand any strain. If for any reason there was a slack in your hawser which was 180 fathoms long, and you were going at full speed, to take up that slack— —

A. The towing machine takes that up.

Q. Well, if the towing machine was not on and the hawser was set and the machine was rigid, would you consider it good seamanship for the tug to go at that speed when something may have caused a slack in the hawser?

A. And no steam on the towing machine?

Q. Yes.

A. No.

Q. What would happen if you did?

A. If he made a sharp turn and there was no steam, and came up on her.

Q. Yes.

A. It is hard to say what would happen.

Q. Something would give?

A. Something would give.

Q. You are sure about that, are you not?

A. No, I am not sure, she may hold and she may not hold.

Q. But it would be a terrific strain, would it not?

A. Yes, sir.
Q. An unusual strain?
A. Yes, sir.

REDIRECT EXAMINATION

Q. (MR. STRATTON): But if you had been master of the tug Commodore that night and figured that at that rate of speed you had run only about sixteen miles, up to 1:45, would you have been sounding your whistle before 1:45?

A. In foggy and misty weather we sound the whistle all the time.

Q. I mean would you have sounded the whistle because you did not pick up the island light?

A. We always sound the whistle in foggy weather.

Q. You stated that in view of the fact that the shackle broke and the barge was piled up on the beach that it would have been better for the captain to do other than he did do. Now, why did you make that statement, was it because the accident happened and your hindsight is better than your foresight?

A. What is that?

Q. The accident has happened. Is it or is it not easier to see what should have been done after the accident has happened?

A. Most certainly.

Q. (MR. GORHAM): Captain, you say that Whale Rock is near Black Rock?

A. No, I did not say that. I do not know the distance between them. I never measured it.

Q. It is on the same side of the channel?

A. No. I do not know just where it is. I haven't got in my head just where it is. Black Rock is what we always try to avoid.

Q. That is on the east side of the channel?

A. Yes sir.

Q. You do not remember Whale Rock?

A. I think it is over on the west side.

(Witness excused)

SEATTLE, OCTOBER 30, 1917.

CAPT. S. SNODDY, a witness called pursuant to the stipulations herein, being duly sworn, testified on behalf of the CLAIMANT as follows:

Q. (MR. STRATTON): What is your business?

A. Master mariner.
Q. How long have you been a master mariner?
A. I was first master of a ship about 12 years ago.
Q. What tugs, if any, have you been master of?
A. Well, the tug Amur is the only one, freight and to
ing.
Q. Is she an ocean going tug?
A. Yes, she is an ocean going vessel.
Q. What is her tonnage?
A. She is 570 net.
Q. And have you towed vessels north from Tree P
to Mary Island light, in southeastern Alaska?
A. I have, several times.
Q. How many trips?
A. Oh, I should think about four trips.
Q. About four trips, towing?
A. Yes.
Q. How many trips through the waters I have m
tioned altogether?
A. Oh, about a dozen, I should think.
Q. When were these four trips towing made, where
have had tows?
A. This last summer.
Q. What experience have you had in other southeas
waters?
A. Well, our route finishes before we come to so
eastern Alaska.
Q. Where?
A. Run to Anyox.
Q. Were you on your tug going north to Anyox o
25th of last March?
A. If that was the date the Commodore passed us!
Q. The Commodore passed Tree Point at 11:19 o
night of the 25th.
A. She passed us that night about 7:30.
Q. Where did she pass you?
A. Hodgson reef.
Q. Where is Hodgson reef with reference to
Point?
A. Well, roughly without looking it up, I should
thirty miles to the southward.
Q. And did you pass Port Simpson that night?
A. Yes.
Q. About what time did you pass Port Simpson?
A. Ten o'clock.
Q. The night of the 25th. What was the conditi
the weather at that time?

A. The weather conditions was, southeast wind to fresh breeze and getting dirty. Rain, dirty rain. We could not see lights any distance.

Q. About what was the velocity of the wind when you passed Port Simpson?

A. It may be about 10 or 15 miles an hour.

Q. At the rate of speed the Commodore was going by, what time, in your opinion, would she reach Port Simpson that night?

A. She was going a whole lot faster than us. She would reach there 20 or 30 minutes ahead.

Q. You reached there what time?

A. 10:30.

Q. What did you have in tow that night?

A. We had the barge Gen. Fairchild, a 2,000 barge.

Q. Was she loaded?

A. Yes sir.

Q. How much?

A. About 1,600 tons.

Q. What else did you have in tow, if anything?

A. Besides the scow Pioneer.

Q. Loaded?

A. Loaded with creosote piles.

Q. What is the tonnage of the Pioneer?

A. She carries 1,500 tons.

Q. What was her cargo?

A. I guess it would be something like a thousand tons.

Q. At the time you passed Port Simpson, state whether or not there was anything in the weather conditions that would cause a skillful and prudent master to put in there at that time?

A. No, I did not think about putting in there at that time.

A. I never would think twice about it. I would have went right on.

Q. State whether or not a tug with only one barge, such as the Commodore had, could withstand more severe weather than a tug with two barges, such as you had?

A. She could stand the weather better and handle herself better. We would want a couple of miles to turn around in with two barges like that.

Q. Did it snow that night?

A. Snowed heavy all night.

Q. Do you know whether or not the weather conditions where you were going, to Anyox that night, were the same as they were at Dixon's entrance, north from there to Mary Island?

A. No, my experience is that in that Portland Canal once you get in there, the snow starts and it never seems to let up. It holds that way in all those inlets you go in. It will break out into snow squalls any time.

Q. Are you acquainted with the tug Commodore?

A. Oh, yes.

Q. And with the barge Bangor?

A. Yes sir, we have towed her.

Q. Have you seen the towing machine on the Commodore?

A. Yes sir.

Q. Do you operate a towing machine?

A. Yes sir.

Q. State whether or not it is similar to the one on the Commodore?

A. Yes sir, similar construction.

Q. What is the purpose of a towing machine?

A. To take in any sudden strain and give out, ease out in a sudden strain and take it in afterwards, when that eases up, without making any jerk.

Q. Suppose a vessel running from five to seven knots an hour, having a tow, would change her course two or three or four or five points, and the barge in tow did not change her course, did not set her helm over. State what, if any, strain, extra strain there would be put on the tow line or shackle that was attached to the barge?

A. Well, there would not be near as much strain; I could not estimate how much.

Q. Suppose the tug changed her course to an angle of 90 degrees from the course she had been running, and the towing machine was in good order and working, and the tow did not put her helm over to make the change, state what, if any extra strain there would be on the shackle or towing gear?

A. Well, there would be an extra strain put on, but you have the machine there to take it up. Another thing, it is far better for the barge not to alter her course, because there is the tug, and there is the barge, and you suddenly put the helm right around like that and come around like that, and the barge does the same thing. The barge carries way more than you do, and you bring up more slack in your hawser and you are liable to run into them. The tow is liable to run into the tug. If she keeps on that way it does not make such a bight in the hawser. It is safer for the tow.

Q. As I understand it is safer for the tow if she does not put her helm over as the tug does?

A. Yes, at the time, until the tug is clear and well on he bow. In fact in turning short around I haven't given he barge the signal to put the helm either way before we rn around.

Q. With the towing machine properly in operation, hose in the tug could put her helm hard aport so as to go o starboard at an angle of 90 degrees to the course, state hether or not there would be any sudden jerk or strain on he shackle—I say sudden jerk or strain?

A. Well, the sudden part of it should be taken up on the achine.

Q. Now assume, captain this state of facts. That on he night of the 25th of last March, the tug Commodore nd in tow the Bangor, laden with a thousand tons of cargo. hat the tug was attached to the tow by 180 fathoms of ow line, one end of which was fastened to the towing ma- hine on the tug and the other end of which was attached o the shackle in the chain of the Bangor. That the tide as high at 2:06 a. m. of the morning of the 26th which ould be 3:06 a. m. Vancouver or Seattle time. Assume that he tow was properly following the tug, and that at 11:19 n the night of the 25th of March, the tug passed Tree Point, icking up the light there, the tug being about half a mile off he shore. That at that time the wind was a good, stiff reeze and increased to 30 or more miles an hour. That he weather was dirty and there were frequent snow squalls nd there was rain and more or less sleet. And that the tug rom Tree Point fixed her course at north west half west, unning at the rate, as the captain judged, between seven nd a half and eight knots an hour over the ground. That e continued on that course until 1:19 a. m. of the 26th of arch, at which time he slowed down and changed his ourse to northwest. That he continued on that course ntil 1:45 a. m., at which time, not being able to pick up ary Island light, he found himself close in to the eastern hore of Mary island, or that little island immediately east. will ask you whether or not he steered a proper course, nder these conditions?

A. Well, I should think so. To verify the whole thing would have to look it up. I don't carry any courses in my ead.

(By agreement of Proctors, witness excused until to- orrow).

October 31, 1917.

CAPT. S. SNODDY, recalled, for further direct examin- ion.

Q. (MR. STRATTON). When you were excused yesterday you were asked to verify the courses mentioned in the last question, as to whether they were or were not proper courses to pursue under those circumstances?

A. I have considered it.

Q. Assume that the master of the Commodore calculated that he was running from Tree Point on that course north west one half west, at a speed of seven and a half miles an hour, over the ground, or thereabouts; and, if he was running seven and a half miles, he would have gone 12½ miles over that particular course. And, assuming that at one o'clock, when he had gone 12½ miles he changed his course and went at slow speed until 1:45 a. m. and on a course of northwest, and on that course during that 45 minutes, he calculated that he had gone three and three quarter miles or thereabouts, making a total of 16¼ miles that he thought he had gone between 11:19 p. m. March 25th and 1:45 a. m. of March 26th. What, if anything, in your opinion, ought to have been done to pick up the island, other than he did, as mentioned in my questions?

A. I don't see that he could have done anything else at all, under the circumstances. All he can do is to get an echo; you cannot sound when towing. If he turned back he had 16 miles to run, and the distance to Whale and Black Rocks is 15. And I should think, myself, if I had gone 15 miles I had cleared those rocks, and the worst danger was over, and I would proceed then for Mary Island. Mary Island is frightfully steep, and Whale Rocks and Black Rocks, they are both low rocks, and it is practically impossible to pick them up in the snow storm.

MR. GORHAM: What are you testifying from?

A. I am testifying from extracts from my log. You can see them if you wish, and what I took off the chart.

Q. State, what is your opinion, as a seaman, with respect to what the master of the Commodore did, as shown by the questions mentioned, as to whether or not he exercised prudence and skill that a master of a tug should exercise under similar circumstances?

A. Yes sir. I do not see that he could do any different than what he did. Because of a abnormal setting of the tide or else the compass out, if he got off his course.

Q. How was the wind blowing that night in Portland Canal, that is, where you were?

A. About ten o'clock when we got into the canal there come a northerly strong breeze.

Q. What time did you get into the canal?

A. Shortly after ten o'clock.

Q. And have you had any experience to determine what ourse the wind would be in Revillagigedo channel or in ixon's Entrance, when the wind was blowing from the north n Portland Canal?

A. You cannot tell at all until the latter part of Decem-er. From the latter part of December until the first of larch the wind draws down that Portland Canal, northerly, ractically all the time, and snowing. My experience is, me and time and again we get—enter in clear weather and en just as we get in there it snows, it is snow and a north-ly gale coming down. And it is the same thing when you et out of there, you get into better weather.

Q. What has been your experience with reference to e course of the wind when you get into Dixon's entrance, hen it was blowing from the north in the canal?

A. Sometimes we had no wind on at all, and it had been high gale in the canal, died right at the entrance.

Q. How long have you been master up in these waters?

A. About two years and a half or three years.

Q. What experience have you had on other coasts, if y, as master?

A. I have been master since I was 22 years of age, on e English coast.

CROSS EXAMINATION:

Q. (MR. GRAHAM): How old are you, captain?

A. Thirty-four.

Q. And you have been on this coast how long?

A. From June 1913.

Q. I think you said most of your trips were made be-een southern Vancouver waters and Anyox?

A. Yes.

Q. And very few up north of the boundary?

A. Yes, with side trips, we don't get them very often.

Q. You don't get them often enough to give you suf-ient experience to make accurate deductions as to these ather conditions?

A. I have run this course three times now in dense fog. ave run from a place called Swamp Point, on the Port-d Canal to Ketchikan, without seeing a thing.

Q. Dead reckoning?

A. Yes.

Q. Your compass is in first class shape?

A. No, I have to have the compass adjusted now. I ve to have it adjusted every six months.

Q. What did you have in tow then?

A. We had nothing in tow that time?
Q. What are you on now?
A. Amur.
Q. Who owns the Amur?
A. James Griffith & Sons.
Q. That is the firm that has the Commodore chartered?
A. Yes sir.
Q. Now, if you were leaving Tree Point in the month of March, at 11:19 in the night, in a rousing storm of wind and sea, with a tow behind, for the Custom House at Ketchikan, what protection would you take for the safety of your tug and tow, your course being up through Revillagigedo channel?
A. In towing you have to take practically the same precautions all the time.
Q. I ask you what precautions you would take. Just enumerate the precautions you would take as a seafaring man and a master mariner?
A. A man should make sure his course is correct, and distance, and ascertain as near as possible what speed I am going, so I can reckon where I will be at a certain time if I don't see anything.
Q. That is all you would do. Now you will have to describe to the Court, who is not a master mariner, and not a sea-going man sufficiently your precautions so that he will understand just what you mean and just what a master does under these circumstances.
A. I take the ordinary precautions.
Q. What are they? I ask you what precautions you would take? Now enumerate them.
A. Sufficient officers on watch at that time.
Q. What officers?
A. Whichever one it is, whichever watch he is on. Put a man at the wheel and a man on the lookout.
Q. Whereabouts?
A. On the bridge, unless very thick, then we put him on the forecastlehead.
Q. Is that an invariable rule with you?
A. Certainly.
Q. Now go on and name the other precautions?
A. And look at the compass and see it is the right course and distance and figure out when we expect to be at our next danger point.
Q. You mean your next danger point or point of departure?
A. Danger point.
Q. How would you know when you reached it?

A. By figuring up our distances.
Q. How would you know whether it was Whale Rocks or lack Rocks?
A. Run through the distance; we should keep the same urse and which ever rock we saw, we would take it—
Q. On a black night you could not see at all?
A. Not if it was black.
Q. How would you know?
A. I would not know until I had run my distance; then would be satisfied I was clear.
Q. How would you know you had run your distance?
A. We would know the distance, calculate it roughly. ou can never get the distance on these vessels towing. A w makes an awful difference.
Q. Fair wind?
A. Fair wind you have to estimate. If we had a fair nd on the trip coming up and the same kind of weather, could reckon from that what she made.
Q. And under these conditions, these are the only pre-utions you would take for the safety of the tug and tow, I understand that to be your answer?
A. Well, these things are threshed out differently in urt than on the boat. I will say that things might crop on the boat that I would not think of here. When I am the boat these things come to me, and they may not here.
Q. Then you don't know?
A. I will not say I don't know.
Q. You haven't given all the precautions?
A. I may and I may not.
Q. That is what I want to know. Do you know how the e sets there in the flood, in that channel?
A. No. Whenever I went up there we never allowed for It may set bad and may not.
Q. You don't know?
A. No.
Q. You have not been there often enough to have ex-ience?
A. The times I have gone up there in a fog I have not en set out. We never figured on it. Our sailing rules n't say, don't give us any tide to figure on.
Q. What are the sailing rules?
A. You have them in the U. S. Pilot Rules.
Q. Now if you had run from Tree Point north through t channel, in a black night, dirty weather, the next thing u would expect to pick up would be Mary Island light or fog horn?
A. Yes sir.

Q. And if you had run 18 miles and did not pick up either the one or the other, what would you do?

A. Well, in that case, the only thing would be to ste along under slow bell and keep sounding your horn.

Q. Keep sounding your horn and try to pick up a echo?

A. Yes sir.

Q. You would consider it imperative duty for safety t do that.

A. Certainly. I could not go back, because if I did would be in danger of getting on Whale or Black rocks.

MR. GORHAM: I do not remember what the direct e amination was, it is so long ago. I will ask counsel whethe he remembers how far he went into the matter with th witness?

MR. STRATTON: I recollect asking him concerning th effect of the towing machine, and that is all.

MR. GORHAM: Nothing about turning?

MR. STRATTON: Yes, I did.

Q. Under the conditions of weather and sea that hav been given to you, if the tug put her wheel hard apo changing her course 90 degrees, would not that have th effect of producing a greater strain upon the hawser?

A. There would be a greater strain, sure, unless som body took in the slack of the hawser at the time.

Q. If the automatic was off, was not taking in th slack?

A. The automatic gear does not take in the slack un the slack is taken out first, until the pull is out first.

Q. Pulled off the reel?

A. And ordinary, it takes the ordinary strain.

Q. How much would that be?

A. That would be the towing strain or a little bit mo Then on a heavy strain you take it out first and then afte wards the automatic machine takes it up.

Q. In other words, the ordinary strain of towing wi the buffeting of the sea against the tow, that is what yo mean by ordinary strain?

A. That just keeps taking it out and running it in on th reel.

Q. By the automatic?

A. Yes sir.

Q. Now, if there is any unusual strain that unrolls th hawser off the drum and does not that make a larger bight

A. Yes sir.

Q. And then after the bight has increased to the maximum, then the automatic towing machine picks it up, is that right?

A. Yes sir.

Q. But your tug is going on just the same?

A. Yes. Of course it brings her up, the strain will bring the tug up some.

Q. I mean so far as the engine is concerned, they are in action?

A. They are going on just the same.

Q. Now, what effect would a maneuver of putting the wheel hard aport and making a change of course of 90 degrees, have upon that hawser, as to strain. You say it would increase it?

A. It certainly would increase the strain.

Q. And the automatic would not take it up immediately?

A. No, the automatic takes it up as it comes gradually. As the first start of the strain comes it works out a little steam, and then more strain and more steam, that has more pull on the hawser, and continues until it brings it out gradually, or else breaks, one of the two.

Q. But the strain is gradual on the hawser?

A. It is gradual on the hawser, but it is there for that purpose.

Q. Haven't you found quite a steady strain, under usual conditions and unusual conditions. You have a difference in strain between the usual conditions and the unusual conditions, an increasing strain?

A. It is not unusual conditions, because we have that in tide rips, and the vessel towed going off 90 degrees, the barge itself going off 90 degrees. That is hard on the machine. But it takes it.

Q. Not always?

A. We haven't had any case where it has not done it yet. I cannot say that it always will.

Q. And you have never figured out how much increase that strain would be on the hawser?

A. No. It would take the engineer for that.

Q. Now, assuming that in taking that change of course of 90 degrees, your gear was locked, set, what effect would that have?

A. That would be a sudden strain on it.

Q. Put a very excessive strain on it?

A. It would be a sudden strain.

Q. Excessive too?

A. Well, it would not be light.

Q. It would be an increased strain from the strain pr
vious?

A. Yes sir.

Q. And if it had such a sudden strain as that, wou
there be a tendency for something to give way?

A. Well, it just depends how much wire is out and t
weight of the barge, and your own and the weight of t
hawser. Sometimes you have so much wire out that t
bight will itself.

Q. If you had 180 fathoms out?

A. That is quite a lot of wire. That would ease u
That bight hanging down is a kind of automatic.

Q. And then your wire would come out of the wat
and snap twenty or thirty feet high?

A. No. Never can get our wire up.

Q. Did you ever try making a turn of that kind?

A. No, it may just hit the water.

Q. It hits it with a report?

A. It will splash.

Q With a loud report?

A. No report.

REDIRECT EXAMINATION:

Q. (MR. STRATTON): If the tug changed her cou
to the angle of 90 degrees, and the towing machine was
automatic and properly working, state whether or n
there would be any sudden jerk on the hawser or shack

A. Well, there would be a sudden pull, but that wo
be taken up by the automatic. The hawser would slack
when the boat turns around, and as it comes taut aft
wards; it would go slack first and then come taut, and t
tautness would be taken by the automatic.

Q. Now, you said that after you had gone 18 miles
the course I have mentioned from Tree Point, you wo
sound your fog horn in order to pick up an echo, is t
what you said?

A. Yes sir.

Q. Now, if in your judgment you had gone only 1
miles on this course, would you attempt to get echoes at t
time?

A. Well, I don't say I would expect to get any, bu
would be blowing in case I did. You don't know wh
you would be.

Q. If you thought you had gone 16 and a quarter m
would you expect to get an echo, under these circumstan

A. No, I would not expect to get any.

Q. Are you acquainted with the Commodore?

A. Yes sir.
Q. Do you know where her bridge is?
A. Yes sir.
Q. His wheel?
A. Her bridge is pretty well forward, almost over the bow.
Q. Now, if you had been captain of the Commodore that night, would you have thought it necessary at any time prior to the time the shackle broke, to put a lookout on the forecastlehead?
A. No, I should say not. A man can see fifty times better in the wheel house than he can anywhere else.
Q. What about hearing?
A. Same thing, when he has got his windows down. If he stands beside the bridge he can only hear on one side but if he stands in the wheel house he can hear both sides. There is no passage across the front of the bridge if I remember right. And his bridge is that much higher than the bow. A man on the forecastlehead could not see and hear as well as the man in the wheel house. You see and hear better in the wheel house than any other part of the ship, in my opinion.
Q. And in the wheel house of the Commodore would be the proper place for a lookout to be?
A. In the wheel house, a man on watch.

RE-CROSS EXAMINATION:

Q. (MR. GORHAM): If you had run these 16 miles and a fraction that counsel speaks of, in this black night and dirty weather, the blowing of your steam whistle at that time would simply be an extra precaution, to see if there were any echos?
A. Yes.
Q. And would do no harm?
A. No, it would do no harm; depending on whether the nature of the night demanded?
Q. Assume that it did?
A. We would blow on account of coming across other vessels.
Q. It would do no harm to sound the whistle?
A. It would do no harm.
Q. And it might do some good?
A. It might do some good.
Q. And it would then be one of the precautions you would take would it not?
A. I say it all depends on the character of the night.
Q. We have given you the character of the night. Very

dirty night, where nothing could be seen; with snow squalls and sleet and rain, and the wind blowing 30 miles an hour?

A. I would blow once in a while. Of course different people—

Q. The more you had run your course out the more necessary it would be to take the precaution?

A. When he got near Mary Island he was blowing to get an echo, but he never would think of getting an echo back at Black Rock.

Q. If he didn't know where he was, he might have drifted in toward the island at 16 miles. 16 miles from Tree Point would reach Mary Island?

A. Hardly. It is almost a straight line across.

Q. 18 miles will bring him right to the center of Mary Island. 16 miles would bring him near Mary Island, would it not?

A. I would have to look that up on the chart. I don't think it would bring him much nearer.

Q. It is exactly 18 miles from Tree Point to the little island on the shore of Mary Island, as figured by witnesses here, and that is half way between the north and south points of Mary Island, so that if he had run 16 miles in his judgment, he might be near that island, near enough to get an echo?

A. I would not say that—no, he would not, if he had a stiff wind and these conditions, he would not get an echo within half a mile.

Q. Are you familiar with the Commodore?

A. Well, no. I have seen her and been aboard her several times.

Q. What is her length over all?

A. I think she is 125 or 130 feet, somewhere about that.

Q. How far is her bridge from her stem?

A. Oh, it may be 15 or 20 feet.

Q. Fifty feet, is it not?

A. No.

Q. You are sure of that?

A. No. I am not sure. But looking at the boat casually it always seemed to me she had her wheel house and bridge well forward.

Q. And when you say that the bridge or pilot-house is the proper place for the lookout, you are basing it upon your impression that there is only 15 feet between the stem and the wheelhouse?

A. No. I would say, I would even say 20 or 30 feet back the wheel house is the position.

Q. But if in excess of thirty feet?

A. No, I would not say that. Because a wheel house is that much higher than the bow. You have that much advantage in the distance over the bow, that much more height.

Q. That is for passing steamers? Picking them up?

A. Pick up anything except right close near shore where you could not get an echo or anything.

Q. How about picking up a low, small, laden vessel in the water.

A. Well, a man would see that. My practical experience is this that the man on the lookout is not worth a damn. I never trust a man on the lookout. We always see things before we get a report from the lookout.

Q. That is due to the man?

A. Well, you cannot say due to the man.

Q. Are all men like that on the lookout?

A. In our case, not in the Commodore's case maybe, being that much higher.

Q. Well, you certainly could see the breakers?

A. Oh, a man would see the breakers, if he was keeping his eyes skinned.

Q. That is what he is there for?

A. Yes sir.

Q. And the man in the bow would see the breakers before you would in the pilot house?

A. I would not say that in the case of the Commodore.

Q. What would be the reason he could not?

A. I would not say he could not.

Q. Now, is it customary to arrange for signals with the tow, a signal card?

A. We have a signal card on board.

Q. What does that signal card contain?

A. It contains different signals. How to put his wheel when we are going to anchor.

Q. And then when you change your course you signal to change his course, if the maneuver is proper?

A. Yes sir.

Q. Now, if you were in charge of the Commodore towing the Bangor with this thousand tons of cargo on that dark night and stormy night, you had come into the breakers, or had approached them so that you could see the breakers of the island, and found it necessary to maneuver to extricate yourself, to port your wheel, would you give a signal to the tug?

A. No, not in that case. The best thing to do in quarters like that is to have him put his helm the opposite way, sooner than get mixed up in signals. He might get excited

if I gave him a signal. That leaves me a better chance to get out and pull him out bodily.

Q. Would not he assist?

A. No, he would hinder me.

Q. If he put his helm to port?

A. If he put his helm to port he would hinder me. That is my experience.

Q. That is your judgment as a seafaring man?

A. That is my judgment as a seafaring man, yes.

Q. Why would he hinder you, will you explain that?

A. If I had models.

MR. STRATTON: You can use objects on the table for models.

Q. I ask you what the explanation is?

A. There is the tow (showing) and here is the barge and the two is out here. While the tug is close in there there is two or three ship lengths between the barge and there.

Q. It is a thousand feet—180 fathoms.

A. I did not know what it was.

Q. That is what it is. I want to give you the conditions.

A. I am really giving you the principle of the thing. We put our helm hard aport, put it an angle of 90 degrees. That is not two or three points. If it was two or three points I would tell him to port. We are going right out in that direction. Now we can turn about twice as quick as he can, because we have our propeller and the rudder, and we came out like that.

Q. At 90 degrees.

A. Yes sir. Now here is the barge and he puts his helm hard aport and he cannot come around in three times the length, and consequently he is headed like that. Now in our going ahead with our helm over it stops us to a great extent, we lose our way; he continues his way and he comes around in that direction.

Q. He comes up on the starboard?

A. If he did not starboard he would come around into us and sink us.

Q. Where you had a thousand feet of cable?

A. Yes, the more cable the worse it is. Liable to get on the bottom.

Q. Would he run into you if he had a thousand feet of cable?

A. It don't matter. With a fair wind, certainly he would. We have to maneuver with our helm and get out and get steerage way.

Q. You could so maneuver that you could extricate yourself from the breakers with this 90 degree curve before he overtook you, and you could then maneuver your tug to keep out of his way?

A. We are not out of it, we are just heading up; we are not out of danger.

Q. How long would it take him to come up with a thousand feet?

A. Well, it would take—you never figure those things.

Q. Four or five minutes?

A. No, I am not giving the time. I have been in these cases before, not getting vessels ashore, but turning around with the tide, in channels. And that is the only way. We have to have him steady the helm to keep off, and that is the way I do. That is the only way, when I mean to turn the barge around.

Q. You say that if you should turn your tug 90 degrees off her former course to avoid breakers ahead of you, that will stop your way, and the barge still has way on.

A. The barge will come straight on all the time, and if she gets in that position, you are off over here, and the hawser will make a bight, and we will pull him bodily out. You will pull him bodily out, whereas if he puts his wheel over he is coming like this all the time, and your hawser comes that much slacker, and you have no way over here, and I get hit by him. Now, when you get out so far you get hold of him, he is running ahead, and he will run past where you were and nine times out of ten he will get caught on the rocks, I will bet you a dollar.

Q. If he has got a port helm he will be moving away from them?

A. Yes, he is moving away but he is only moving slowly, gradually. You see he has a long weight of hawser, and the hawser is no use to him.

Q. But if he is moving away gradually, he is not approaching the island; he is at least going off to some degree?

A. Now, if you did not reach the rocks and he is moving away he would not get any nearer the rocks than you did?

A. Certainly he would.

Q. He would not get in to the shore under these maneuvers, under a port helm?

A. Certainly would.

Q. Why?

A. Because he would be still running under his own momentum. He would not have the benefit of the tug pull-

ing him out. He would have to rely on his own helm to get out of there.

Q. He would have momentum before given to him, and he would have a fair wind and he would have the influence of his port helm. Now, taking these things together, the wind and the momentus that he had from the tug and the port helm would he move toward the island?

A. Yes, certainly. The fair wind would drive him right on top. As soon as the tug quit pulling, he would drift right on.

Q. How long would it take?

A. I would not give the time.

Q. What would the tug be doing in the mean time?

A. In the meantime the tug has not got out far enough to do any good.

Q. Why not?

A. If you bring more excessive strain on the hawser you have left that much more slack out.

Q. What would bring more excessive strain?

A. You have ported, the turning around of the ship.

Q. The porting of the helm?

A. Yes sir.

Q. If your towing machine was on, how then, your automatic machine?

A. Just the same, you run out here on a straight track and it will bring you up, but you are not doing that.

Q. You say if the barge ports her wheel that there would be more slack in the hawser, but the machine will take that up, according to your theory?

A. No, I did not. I say the strain is first taken up before the slack is taken up.

Q. But if you are going and making a turn of two or three points, then you would signal?

A. Well, we don't generally signal.

Q. But would you?

A. In that case, if it is just a short distance, we might in close quarters. But in ordinary cases we would not signal.

Q. So that he might help you to get out himself?

A. Yes, because we would not come right athwart of him then.

Q. That would be good seamanship?

A. Yes, good seamanship in that case.

Q. (MR. STRATTON). Do you know whether it is customary in towing up in Alaska waters, for the tug boat to carry signal cards, and give signals to the tow or whether it is not?

A. I do not think it is customary apart from our firm. These rules were drafted up in Griffiths' office. I do not know of any other company that has the same card or that uses any signals. The reason why we got them is because we are a freight boat, we are 250 feet long and we cannot shout like the ordinary tugs can.

Q. (MR. GORHAM): You cannot shout in heavy weather?

A. No, they cannot shout a thousand feet.

Q. But Griffiths & Sons have these signal cards?

A. Yes.

Q. They give cards to the tow so that there is an understanding between the tug and tow?

A. The barge and the tug each have a card.

Q. That is what I mean, so that the helmsman on the barge will know and understand what the signal is?

A. Yes.

Q. And that is the case with all the Griffith fleet?

A. Yes, that is just with the Griffiths.

Q. You do not know whether the Commodore had such a card?

A. Well, she may have had, but I don't know whether she had or not.

Q. You do not know whether she had the same understanding as to signals with the Bangor that you have with your tows?

A. No, I don't know that.

Q. It would have been good seamanship to have provided such a card, would it not?

A. It all helps.

Q. Now the Commodore is towing Griffiths barges now?

A. Yes sir.

Q. Have they that card?

A. Oh, they have it now, sure.

Q. And when the Commodore was towing before for Griffiths, prior to this accident, they had these cards, didn't they?

A. Yes.

Q. The barges had that she was towing, had these cards? That is when towing on barges?

A. I do not know.

(Witness excused).

OCTOBER 31, 1917.

CAPTAIN THOR NIELSEN, a witness called on behalf of the Claimant pursuant to the foregoing stipulations, being duly sworn, testified as follows:

Q. (MR STRATTON): Where do you live, captain?
A. We have been living here sixteen or seventeen years.
Q. In Seattle?
A. Yes sir.
Q. How long have you been a master mariner?
A. Since 1883.
Q. What is your business at the present time?
A. Mariner.
Q. Master mariner.
A. Yes sir.
Q. How long have you been a master mariner?
A. Since 1888.
Q. What is the character of your papers? For vessels of any size?
A. Vessels to any size.
Q. And to run any place?
A. Yes sir.
Q. What has been the character of vessels that you have run on?
A. In the tow boat business.
Q. What if any experience did you have on tug boats, before you got master's papers in 1888?
A. Quartermaster and chief officer.
Q. On tugs.
A. Tugs.
Q. Ocean going?
A. Ocean going, and also in sailing vessels. I had some years experience in sailing vessels.
Q. That was before you got master's papers?
A. Before I got master's papers.
Q. I will ask you, prior to the time you got master's papers, on what did the tugs that you were on operate?
A. San Francisco Bay. Sometimes coastwise, and mostly on Puget Sound.
Q. Prior to the time you got master's papers, did the tugs you were on ply on the waters of southeastern Alaska?
A. Yes sir.
Q. When did you commence, if at all, to run to southeastern Alaska and through Revillagigedo Channel?
A. In 1897.
Q. And what would you say of your trips through that channel since 1897, how frequent have your trips been through that channel since 1897?
A. That is pretty hard to answer. Mostly going

through Alaska. That has been my most permanent work, going to Alaska; more than half the time.

Q. And how many times as master of tugs during the last 20 years, have you gone through the waters of Revillagigedo Channel?

A. Well, I don't know.

Q. You do not know how many times?

A. I could not tell how many times.

Q. Just think a minute, captain. What is your best judgment how many round trips have you made through that channel? You can figure up the number of years and get at it approximately, you know?

A. No, I haven't any idea. The trips have been too many for me.

Q. About how many trips per year would you average?

A. There has been times, some years, that I made two trips a month.

Q. For two or three years?

A. And there have been less.

Q. Well, what has been the character of the tows that you have taken with these tugs through that channel?

A. Barges.

Q. What has been the size of the barges?

A. Anywhere from five or six hundred tons up to two thousand tons.

Q. When did you make your last trip through Revillagigedo Channel?

A. This spring.

Q. State whether or not in going north through that channel you have made the trip in the night time?

A. Night time and day time.

Q. Have these trips through that time been numerous —through that channel—or only a few?

A. Very numerous.

Q. Are you acquainted with the tug Commodore?

A. No. I have been aboard of her but not when she was in action.

Q. Have you seen the towing machine that was aboard of that vessel last March?

A. There was a towing machine on board. Whether it was the same one that was there last March I do not know.

Q. When was the last time you were aboard of her?

A. I could not say for certain. It was some years ago.

Q. Have you seen the barge Bangor?

A. Yes sir.

Q. Been aboard of her?
A. Yes.
Q. Ever tow her?
A. Many times.
Q. Through that channel?
A. No.
Q. What, if you know, is the character of the currents through that channel?
A. Well, I do not know anything about the currents up in that channel.
Q. Why?
A. Why, we have got a very poor description.
Q. You mean government description?
A. Yes sir.
Q. How have you got what information you have concerning the currents there?
A. Mostly from watching the fishermen there and have seen the current run by their buoys on the fishing gear.
Q. Have you got any knowledge from your experience in running either up or down that channel?
A. Very uncertain experience.
Q. Do you know what that is?
A. Well, to my ideas you could not have very much faith in that current.
Q. Have you had tugs on which towing machines were operated while you were master of them?
A. Yes sir.
Q. What is the purpose of towing machines on a tug?
A. To equalize the strain as much as possible, to keep an equal strain.
Q. To keep an equal strain on what?
A. On the gear.
Q. The towing gear?
A. The towing gear.
Q. When a towing machine is properly operated, with a proper amount of steam, state whether or not it permits any sudden jerking or strain on the towing gear, if the tug should turn at an angle of 90 degrees, by putting her helm hard over, when the tow did not change her helm?
A. The tow didn't change her helm?
Q. Yes.
A. Then it would be inclined to come a sudden strain on the hawser, by the vessel not following the tug. If it did the towing machine would be automatic as the strain came on and pay out, and when the strain relaxes she heaves in.
Q. What would the result of that be?

A. Keep an even strain.

Q. Are you familiar with the location of Tree Point and Mary Island?

A. Yes, in my estimation, I think I am.

Q. State whether or not you have navigated Revillagigedo Channel in pretty near all condition of weather and tides?

A. Yes sir.

Q. Day and night?

A. Day and night.

Q. As master of the tug?

A. As master of a tug, yes sir.

Q. Now assume, captain, that the tug Commodore on the night of the 25th of last March had in tow the barge Bangor, the towing line being 180 fathoms; the tow line being attached to the towing machine on the tug and the other end of the tow line being attached to a shackle belonging to the barge, which shackle was in turn attached to the anchor chain of the barge. The tow properly following. The barge being laden with about a thousand tons of cargo. Assume, also, that at 11:19 o'clock p. m. of the 25th of last March, the tug on her way north with the tow passed Three Point at 11:19 p. m. Assume that the tide was high at Mary Island at 2:06 o'clock a. m., according to Sitka time, on the morning of the 26th of March. Assume that at the time the tug and tow passed Tree Point and picked up Tree Point light and was half a mile from the shore, that at that time there was a fresh wind blowing from the southeast or east southeast, and that that wind increased in velocity from that time on until the wind got up to 30 miles an hour by one o'clock or one forty-five—thirty miles or more. Assume that the weather was dirty and that from the time the tug passed Tree Point, or was abreast of Tree Point, there were frequent squalls of snow, and that there was rain and sleet. And, assume that the master of the tug set his course from Tree point North west one half west, his vessel running at the rate of seven and a half or eight miles an hour over the ground, as he believed. And that he continued from Tree Point on that course at that rate of speed until one o'clock and he then changed his course north west, and ran on that course at half speed until 1:45 a. m., that is he run on that course 45 minutes and that at 1:45 a. m., of the 26th of March, the master of the tug found that he was close in to the eastern shore of Mary Island, or close in to the shore of that small island east of Mary Island. I will ask you

whether or not under these conditions the tug steered a proper course?

A. Yes, in my estimation he did.

Q. Do you want to verify that by using the rulers on the chart that we have, or do you know without that?

A. Well, I could do it by the government chart and parallel rulers. Yes, I have it pretty near in my mind.

Q. You have it in your head?

A. Yes.

Q. I think you had better use the chart.

A. The course here with a tow attached, a mile off, to my knowledge should be north west three eighths west; and of course a half a mile off would change the course more to the westward. Do you want me to take a regular magnetic course a mile off?

Q. A half mile off.

A. Northwest one-half west. That makes one-eighth difference between the mile and the half mile off, one-eighth of a point.

Q. I will ask you whether just before you answered that question you took this chart, claimant's identification, and determined by the usual method what that course was?

Yes, the true course from half mile off, the magnetic course.

Q. I mean that is the proper course.

A. It is the proper magnetic course.

Q. Now, if after having run on that course until one o'clock the captain of the barge changed his course to northwest, I will ask you whether or not that was a proper change?

A. In my estimation it would be.

Q. Now, assuming that the captain of the tug ran on that course northwest for three quarters of an hour, on slow bell, and found himself close to the shore of Mary Island, as I have already stated, I will ask you whether or not in your opinion, the captain had steered a proper course the way

A. Yes.

Q. Have you ever, when you were master of the tug, found yourself at night time, after running north through that channel, and not being able to pick up the light, close to the shore of Mary Island?

A. At times, yes sir. It has been very hard when going up there, both ways, both sides.

Q. What did you do when you found yourself close to the Island?

A. Got clear of it.

Q. By putting your helm over?

A. By putting my helm to port.

Q. Do you know whether or not it is usual occurrence for tugs to find themselves as the Commodore did, close to the shore of Mary Island, when running up there in the night time, dark nights and dirty weather?

A. Yes, that happened to me a good many times.

Q. When that happened to you, I will ask you whether or not you had used every precaution that a skillful and prudent and careful master would use?

A. Yes sir.

Q. What precautions did you use, other than those, so far as you know, that the captain of the Commodore had used on this occasion—did you use any other precautions that you know of.

A. No sir.

Q. State whether or not it is possible for a competent and skillful and prudent master of a tug to judge the exact speed of his vessel, when having a tow, under the conditions that I have already mentioned to you?

A. You cannot do it.

Q. Why cannot you do it.

A. It is an element, to my mind, that we are not acquainted with. The force of the wind may make an extra current; and the steering of the vessel at that time, you cannot say what effect they will have on your tug.

Q. State what, if any effect, the steering of the barge has upon setting a vessel out of her course, especially up in these waters?

A. If the barge hangs on this quarter of the tug, on this side, she is bound to drag her, and to keep on your course you have to overcome that with your own steering power. And I have frequently had experience that it dragged me sideways.

Q. Now, take it on the night when it is dirty, and where the tug cannot see the barge for a great portion of the time, and therefore cannot see what course the barge is steering whether it is following directly in the wake of the tug or not, and where the barge cannot at all times see the tug, what would be the result as to vessel getting out of her course possibly?

A. There would be all kinds. Nobody can avoid it, and nobody can tell. You don't see the essel and the vessel don't see the tug, and the tug don't see the vessel.

Q. And the result would be what?

A. You are not able to tell what the result would be, because you cannot see.

Q. Now, if you had been master of that tug, and figured that your vessel was going seven and a half miles an hour from Tree Point on the course that I have mentioned, and you ran on that course until 1:15 a. m., that would be an hour and forty one minutes, and you then changed your course to northwest, and slowed down under slow speed and ran three quarters of an hour; then you would have run on your first course twelve and a half miles, and on your second course three miles and three quarters, making a total of sixteen and a quarter miles. Would you have figured, under the circumstances, that your tug was in any danger?

A. No sir.

Q. Now, where would you have considered that the tug would have been at that time, that is at 1:45, with reference to its being in or out of its course?

A. Well, I would think that I was on the right track.

Q. Would there have been anything to cause you to think differently?

A. No.

Q. Now, even if the vessel instead of having gone the 16¼ miles, as the captain thought, had in fact gone 18 miles, and even if the captain knew that he had gone 18 miles, would there then have been anything to indicate that the vessel or tow was in danger.

A. No sir.

Q. Or would there have been anything to indicate that it was close to Mary Island-?

A. No sir.

Q. If, at 1:45 that night, you had been master of that tug and had gone over that course, and had been unable to pick up Mary Island light, as the captain of the Commodore had been unable to do, what would you have done?

A. Slowed down.

Q. Well, would you have slowed down again after you had already slowed down at one o'clock?

A. No, if at one o'clock she was under a slow bell, I would think I had used due precaution to pick up the whistle.

Q. What was your purpose in slowing the vessel down and keeping on the course?

A. For safety.

Q. And for the purpose of picking up what?

A. Picking up the whistle or Mary Island.

Q. In your opinion, the vessel Commodore not having

been able to pick up Mary Island light at 1:45—state whether or not in your opinion it would have been good seamanship for him to turn his vessel around and head back the other way, either at 1:45 or any time previous to that, under the conditions I have mentioned?

A. I would not have done it.

Q. What is your opinion about its being good seamanship to do that?

A. You have got Black rocks there and reefs and Whale rocks on the other side. By heaving to and lying in it you are losing control of your vessel, and you are only the matter of a few miles to make the light that you know, that we can hear the fog whistle, that we can hear the fog whistle or see the light. That is our place of safety to go that is our place of departure.

Q. Now if you had been master of the tug, and had found yourself at 1:45 close to the Island there, what would you have done?

A. I do not see that I could have done anything else than port my helm and steer clear.

Q. Now if you ported your helm so as to take 90 degrees east of that course that she had been steering, and the barge aft ported her helm at the same time, there being an automatic towing machine working at that time, and the tug being at half speed or full speed, and the shackle broke, and the tow drifted on to the rocks of Mary Island, the eastern shore, what would you say was the cause of the tow getting loose and drifting?

A. The shackle.

Q. What would you say with reference to the strength of the shackle in that case?

A. Not strong enough.

Q. How strong is it customary to have the shackle used for towing?

A. Well, to overcome all excessive strain.

Q. How strong should the shackle be with reference to the strength of the tow line?

A. In my opinion it should be twice the strength.

Q. That the shackle should be twice the strength of the tow line?

A. Fully.

Q. Have you ever seen any shackles break, in your experience, in towing?

A. Yes sir.

Q. What caused them to break?

A. Not strong enough.

Q. Do you know whether or not a shackle being used

in towing has a tendency to crystallize, where the shackle is of wrought iron?

MR. GORHAM: I object as leading.

Q. What effect does the use of a shackle have upon it with reference to making it strong or less strong?

A. Less strong.

Q. Why is that, captain?

A. It gets crystallized from hammering and using.

Q. I would like to take a minute of your time, captain, and have you figure up a little more definitely how many trips you have made through that channel. Now you say you have been running through there as master of the tug since when?

A. Since 1897.

Q. That would be twenty years, would it not?

A. Yes sir.

Q. Now you stated sometimes that you made two trips a month?

A. Yes sir.

Q. How many times, in your opinion, as near as you can estimate, did you go through there the first year you commenced?

A. The first year was about five or six times.

Q. Well, we will put it five. Now during the next four years how many times, on an average, did you make a round trip through there?

A. During the year?

Q. During the year, on an average, for the next four years?

A. I should judge about 20 a year.

Q. That would be eighty, in four years. Now the next two years, the sixth and seventh years, about how many would you average a year?

A. Not quite so many.

Q. Well about how many a year?

A. Oh, probably about a dozen trips.

Q. That would be 24 for the two years. Now the 8th and 9th years, that would be 1905 and 1906, would it not?

A. Not so many. Then I went to the westward I should judge about six trips I went in there.

Q. That would be twelve. Now the 10th year, that would be 1907. How many did you make that year?

A. That is hard to say. It is hard to keep track without I had my logs.

Q. From your best recollection?

A. Well, anywhere from six to eight or ten trips a year..

Q. Well, I will say eight trips in 1907. Now during the last ten years how many?

A. Oh, on an average—

Q. About eight trips?

A. Yes.

Q. Well, the last ten years that would be 80 trips.

A. Of course this last year I only made a couple of trips.

Q. That would be 209 trips you made through that channel Revillagigedo channel. Is that a very conservative estimate?

A. Yes sir.

CROSS EXAMINATION:

Q. (MR. GORHAM): Having been up there in the channel so many times, you must have been there in all conditions of weather and seasons and stages of tide, in Revillagigedo Channel?

A. Yes sir.

Q. What do you call Revillagigedo Channel?

A. Why, the waters from Dixon's entrance to Tongas Narrows.

Q. You consult your tide tables on these trips that you have made in passing through these waters?

A. Yes sir.

Q. That is one of the precautions you take in navigating there.

A. Along certain points, yes.

Q. Well, you do in Revillagigedo Channel?

A. Why, between Tree Point and Mary Island, it is very little knowledge that we have got on the tide up there.

Q. The tides shown in the tide tables at Mary Island for every day in the year?

A. It shows high and low water.

Q. What is the highest fall of the tide there, do you know?

A. Well, now on certain seasons, the state of the moon, it is more spring, it is larger—the neap tide is smaller.

Q. That is the case all up and down the coast, is it not?

A. Not so much on the ocean waters; it has more or less average.

Q. It is in the inland waters?

A. More effect in inland waters.

Q. Now what is the highest tide on Revillagigedo channel, between Tree Point and Mary Island, in the year what is the maximum rise and fall of the water?

A. I could not tell you, sir.

Q. Why not, captain?

A. It is too much to remember.

Q. And yet you consult your tide tables every trip you make through there?

A. Yes sir.

Q. And where does the flood tide come from, from the north or the south, in Revillogigedo Channel?

A. From the ocean.

Q. Does it come from the south end of Duke Island into the channel?

A. It must be coming in through Dixon's Entrance.

Q. And coming in to the northwest.

A. Northwest.

Q. What is the trend of the tide on flood, northwest?

A. From the observations I have got on fishermens gear, seems to be northwest on a flood tide.

Q. And on an ebb tide, south east, is that right?

A. Yes, the opposite, south east.

Q. What would you call the tides in March, spring tides?

A. I don't know.

Q. What are spring tides.

A. Spring tides come on the change of the moon.

Q. You do not know whether the moon was full, with relation to March 26th?

A. No sir.

Q. And the tide coming from Dixon's Entrance, from the ocean, on the flood, with a trend northwest in Revillagigedo Channel, the set would be over to the eastward would it not?

A. The set?

Q. If you had a log in the middle of the channel there the set of that log would be to the eastward?

A. I cannot say, sir.

Q. You could not say. You don't know whether it would?

A. I don't know.

Q. And yet you say the tide comes from the ocean at Dixon's entrance. Don't you know the effect of a momentum of that kind?

A. As I stated, it set northwest or southeast, as

have seen off certain spots where the fishing gears have been down, if it continues that way, I haven't seen fishing gears from Tree Point to Mary Island.

Q. Where have you seen the fishing gear?

A. A mile or two to the northward of Tree Point.

Q. Have you seen fishing gear on Mary Island?

A. No.

Q. Have not been any seasons they have had fishing gear in there?

A. I don't know whether they have had fishing gear there.

Q. If you had been there you would have seen them.

A. I would not say.

Q. Now how wide is it between Duke Island and the mainland to the eastward? What is the width of Revillagigedo Channel?

A. I could get it on the chart there.

Q. What is the average width between Duke Island and the mainland to the east, across the channel?

A. Here is the narrowest spot right here. A little better than seven.

Q. That is the narrowest?

A. Yes sir.

Q. And between Mary Island and the mainland to the east, across the channel?

A. Four miles.

Q. Now that channel between these narrow points, or this channel from the land across to the point on Mary Island that you have made, south past Duke Island, and past Tree Point, shows a depth from 90 fathoms upwards, don't in the most of the channel?

A. Over a hundred in a good many places.

Q. It is a deep channel almost all through there, except very close to the shore?

A. Yes.

Q. And that would indicate a large volume of water, would it not?

A. Seven miles in one place and four in another.

Q. Now would the influence of the tide coming from Dixon's Entrance and the ocean, on a body of water of the dimension you have given, and the depth you have given, what would be the trend or direction of that?

A. The flood would set northwest.

Q. And what would be the velocity of that tide?

A. I could not tell you, sir.

Q. You don't know?

A. No sir.

Q. You are familiar with the Alaska Pilot, a government publication?

A. I have read it a good deal, yes.

Q. Any indication in the Alaska Pilot as to the strength of the tide in Revillagigedo Channel?

A. Not to any certainty that I ever seen.

Q. You have seen that?

A. It might be in there, the later ones. I am not trying to keep up with the rates the government tell me generally not to put too much stress, and use your own information and judgment and experience.

Q. What would you say from your experience, in 200 voyages through that channel, round voyages, that the strength of the flood tide was?

A. I could not tell you.

Q. Have you any idea at all?

A. No, I cannot say that I have.

Q. Would the tide be as strong there as in Seymour Narrows?

A. No.

Q. Then you can distinguish between that and Seymour Narrows?

A. Yes.

Q. What is the current in Seymour Narrows, approximately?

A. I believe it has been located by government account about 12 nautical miles an hour.

Q. Now there is a vast difference between the velocity of the tide in Seymour Narrows and the velocity as you experienced it in Revillagigedo Channel?

A. Very much so.

Q. The difference and the extent you do not know. You would not consider the velocity in that channel to exceed two or three knots an hour in your experience?

A. No sir.

Q. Now from your experience would you think it exceeded one knot an hour?

A. I don't think it would, sir.

Q. That is the flood, and the same would apply to the ebb, would it not?

A. Well, the wind has a good deal to do with the current?

Q. And if the wind is east south east, what effect will that have upon a flood tide?

A. Wind east southeast and the tide setting northwest, it would set it a little bit side ways.

Q. Which way, to the west or east?

A. The wind would set it more to the west.

Q. What effect would an east south east wind have upon the north west trend of tide?

A. I haven't any idea, sir.

Q. Now captain, what was the name of your steamer that you were up there on the last trip?

A. The tug Goliah, sir.

Q. Owned by whom?

A. Puget Sound Tug Boat Company.

Q. You are not in that vessel now?

A. No sir.

Q. You have been expecting to take another command, another vessel?

A. When I get well I am looking to get some work.

Q. What have you been expecting to get?

A. Well, I don't know.

Q. Well, you had something in view in the last sixty days?

A. No, I haven't had in the last sixty days.

Q. Did you have anything in view prior to that?

A. I had an opportunity to go as pilot in south eastern Alaska, if I was well.

Q. For whom?

A. The Alaska Steamship Company.

Q. Have not you had something definite in your mind, in view, captain, in the last two or three months, from some particular owner?

A. I had something in view in regard to going piloting on the Sound.

Q. Just answer my question. Had not you something in view in southeastern Alaska, from some particular owner, in the last ninety days?

A. No.

Q. You have not?

A. I have been promised a pilot job on the Sound, in fact I had one, but my sickness held me back, sir.

Q. You speak of precautions captain, that a tug master takes when he is towing in these waters. What are those precautions?

A. A good lookout.

Q. What else?

A. Watch out for dangers.

Q. How do you watch out for dangers?

A. At times we slow down in plenty of time and a good lookout.

Q. Where is your lookout?

A. I have a lookout on the forecastlehead; I also lookout myself.

Q. From the pilot house?

A. From the pilot house myself.

Q. And what if any precautions are there in which the tow cooperates with you, under your direction, if any?

A. In regard to the tow?

Q. Yes sir.

A. Steer by the tug?

Q. Well, I mean what precautions are there, that you would take as master of the tug, wherein the tow under your command cooperates with you?

A. In regard to the master of the tow?

Q. Yes sir. Do you ever give him any signals?

A. Well no, I haven't been accustomed to do it.

Q. You do not have a code of signals to give him, so that he might know what you want him to do, from time to time?

A. Except we have signals where we go to anchor.

Q. You do not have a code of signals on paper to give him so that when you give him a signal with your whistle he knows what you want him to do. Is that right?

A. Well no, we have signals to a certain extent.

Q. What extent have you?

A. To set fore and aft sails when the wind is free, if they have any.

Q. Is that all?

A. Have signals there to brace the yards, if they have got any. We have signals there to go to anchor, to get the anchor ready. I think that is about all.

Q. No signals for him to port or starboard his helm?

A. No sir.

Q. You don't have these at all.

A. We have fog signals.

Q. A tow don't have signals in your code for him to port or starboard his helm?

A. Sometimes we have them.

Q. I ask you if you have such signals?

A. I cannot say just from memory what is on that card, signal card. I would not like to put myself guilty.

Q. Did you ever give a tow a signal to port or starboard the helm in all your 200 voyages?

A. Not necessarily.

Q. I say did you ever. I did not ask if it was necessary. Did you ever?

A. I cannot answer that.

Q. What other precautions did you use for the safety

of the tug and tow in navigating these waters, under such weather conditions as has been indicated to you, at night?

A. Well, trying to keep in the channels, so near as I am able.

Q. And how can you tell when you are out of your channel on a black, stormy night?

A. Cannot tell.

Q. And what other precautions did you use to assist you in telling, so far as they will assist you?

A. Steer my course.

Q. Is that all?

A. And the distance.

Q. Yes. Is that all?

A. In dark and foggy nights, of course we use our whistle.

Q. What would you use your whistle for, captain?

A. If we are meeting any steamers.

Q. Do you use your whistle at all to assist you in ascertaining whether you are out of your course or not?

A. If you get close to shore for an echo?

Q. How do you know you are close to shore?

A. If I get an echo.

Q. But you do not know it first. You blow to find out if you can get an echo, don't you?

A. Yes sir.

Q. Then you determine, if you have an echo, that you are near some shore.

A. If I am approximate. For I blow my regular whistles if it is foggy, we must blow them if it is foggy, to warn approaching vessels. But if I am satisfied in my mind that I am on my course, and not in danger, I would not blow anything but a fog whistle.

Q. If it was clear and dark you would not blow?

A. If it was clear and dark I would not blow.

Q. How would you be satisfied you were on your course, in your mind?

A. From what I have been steering on the course.

Q. Yes, but you say these waters are uncertain, and that you cannot be satisfied as to your position in uncertain waters?

A. I cannot be.

Q. Then you are not satisfied as to being on your course. You cannot be satisfied in your own mind as to your position, can you?

A. Not right down to a certainty.

Q. You cannot be satisfied at all, can you?

A. Oh, to a certain extent.

Q. To what extent?

A. That I have followed that course.

Q. I did not ask you whether you would be satisfied that you followed your course, but whether you would be satisfied with the position of the ship?

A. If I followed my course I should be satisfied, to a certain extent of the position of my ship.

Q. To what extent?

A. That I would believe that I was there.

Q. That where your following your course you ought to be on the chart?

A. Yes sir.

Q. Now you are testifying as to the center of Revillagigedo Channel?

A. I understand you to say from Tree Point.

Q. We are discussing these waters now. If you have not any knowledge whatever of the currents, and they are uncertain, how can you tell what the position of your ship is after having run a certain course and certain distance?

A. Well, by running there a good many trips, and the tide as I explained here a while ago that I have seen the current from the buoys of the fishermen.

Q. Would you make allowance for currents?

A. The currents will set on that spot, but as I have done many trips, and by former courses running up and down there, there have been very few times that it has not set me more or less out.

Q. Which way?

A. Either way.

Q. So that you never could depend on it.

A. I could not be quite sure.

Q. Now if you are not quite sure, it would be wise to take precaution and blow your signal, would it not?

A. In foggy weather.

Q. In thick weather, snowing weather?

A. I must blow a signal, fog signals in foggy weather.

Q. Let us cut out the fog. There was no fog that night. It was snow and snow squalls and sleet and rain.

A. The government compels you to use a whistle for snow, sleet or rain.

Q. And you did that in case—

A. For approaching vessels.

Q. That is all?

A. Not if I come close to shore, then I use it to get an echo.

Q. If you did not think you were coming close to shore you would not use it at all to get an echo?

A. I would not expect to get an echo.

Q. But you would not use it unless you felt you were getting close to shore?

A. I would use it before I got up there close.

Q. And find out?

A. And find out.

Q. Because you would not know where you were?

A. I would know to a certain extent, nearly.

Q. How would you know nearly where you were?

A. By your course and by your distance.

Q. If the tug knows nearly where she is there never would be any occasion for going on the rocks?

A. I have seen places where it would only take you about ten feet to clear, and that is nearly.

Q. I am speaking of Revillagigedo Channel now.

A. Yes sir.

Q. Now on that dirty, rainy night, running according to counsel's questions, 16¼ miles, but the distance from the little island off Mary Island to Tree Point is 18 miles. There is a mile and three quarter's difference. It would have been a wise precaution for him to sound his whistle and try to pick up the land, would it not?

A. Yes sir.

Q. And it would have been unwise for him not to do it, would it not?

A. Well, snowy weather—

Q. I am not talking about snow.

A. Yes, it would have been wise to use it.

Q. It would have been unwise if he did not use it?

A. Yes.

Q. You say that where a tug changes her course 90 degrees from her former course, it does give a strain on the hawser and on the mechanical apparatus?

A. Yes sir, it should give, there should be a time when it slacks up a little first.

Q. But if you put your wheel suddenly over, that will bring a bight in your hawser and make a strain on the line?

A. Well, it would not make a strain on the hawser when the bight is there.

Q. There is a bight always there?

A. To a certain extent.

Q. And you increase the bight if you are still going ahead and drag that vessel behind you?

A. If you put your wheel crosswise on your stern, as we have to do, I imagine there is a resistance.

Q. I don't understand you, captain?

A. Now here is a tug coming; say this is the rudder. So when she is going on a straight course that rudder is in the same line as her keel. If you put her helm over and swing that steamer, you put your rudder over this way and to my idea it should be a resistance.

Q. Have you ever figured out what resistance the surface of that rudder, when it is put over, makes to the speed of the vessel, when going full speed, what resistance it would be?

A. No, I have not.

Q. Do you know to what degrees of a mile an hour it would retard the speed of the vessel going full speed, when she puts her wheel hard over, how much it would be retarded?

A. It would retard it to an extent. It would give a bigger bight for the hawser.

Q. What would it lessen the speed, do you know the percentage.

A. The percentage of lessened speed?

Q. Yes.

A. No, I do not.

Q. You never figured it out?

A. It would be pretty hard to come down on paper and figure when you are trying to avoid land.

Q. Now you say there would be no strain on the hawser if you ported the helm ninety degrees?

A. Not the first off, it would give you a bight.

Q. Not the first go off, why not?

A. You are checking the speed of your ship, to my idea.

Q. The ship is coming up, you have made your turn.

A. I have put my wheel over for turning.

Q. You put your wheel over and turn it to 90 degrees, and that would make a greater bight in the hawser?

A. Yes, when I am turning.

Q. Does not every time you increase the size of the bight or the degree of the curve of the bight, increase the strain?

A. When you are coming up you get it again?

Q. But you are going ahead all the time?

A. You are going ahead.

Q. There is still strain on that hawser from the tug you have not stopped?

A. I cannot see it that way.

Q. As a physical fact you cannot see that if you have n line made fast to something you are pulling and you turn aside, and keep on going just the same, that the strain does not increase?

A. It decreases the strain when you put the wheel over, but when you are straightening up, then you allow your boat to increase her speed again.

Q. Now suppose captain, the towing machine was locked on the tug, set, and no steam in it when you made your turn, what would happen?

A. When she came up on it there would be quite a strain.

Q. How much of a strain?

A. I don't know.

Q. You don't figure these things out mathematically, do you?

A. We figure out having the boat slowed down, that is one precaution to avoid that heavy strain.

Q. That is a proper precaution, if you are making a 90 degree turn, to slow down the tug, is it not?

A. No, not necessarily, with a towing machine, if she s in action.

Q. But I say if it is not in action, then you would slow he boat down when making that turn, to avoid that strain?

A. Well, I don't know; I never run with a towing machine without having it in action.

Q. Never at all?

A. In certain instances, yes.

Q. You mean—

A. But not in heavy weather, with the wind blowing hirty miles an hour.

Q. You would not?

A. No sir.

Q. Now what is the reverse course from northwest, outheast?

A. South east.

Q. If we take a course south east from the little island on the east shore of Mary Island, and run that out a certain distance, and then take the possible course of north east half west, and run that out a certain distance so that we take up this time from 11:19 to 1:45, do you know where it would land you?

A. If you steer that course, the reverse course from at little island?

Q. Yes, because that is where the steered course came from and landed us on that little island at 1:45. Now to go

back on the reverse course the same distance, where would land you. I wish you would work it out on the chart?

A. Where that course would land. That same spot.

Q. The same spot as coming north?

A. I cannot see how I would make the same spot against a thirty mile gale.

Q. You could not. As a matter of fact you would not but I am taking the reverse course, and when they are drawn and plotted on the chart, this reverse course with the point of departure at the little island, why then we can assume they came up on these lines.

A. The compass is magnetic.

Q. I wish you would take the chart, and take the reverse course from the little island, of southeast.

A. Under the same difficult weather?

Q. Just where the course is, that is all.

A. What kind of weather am I going to be in.

Q. He came up on that course and it brought on that island. I want you to give me these courses ending at the island.

A. And going back?

Q. He would not go back.

A. You ask me to go back.

Q. I want you to go back as far as the chart is concerned.

A. In the same condition of weather?

Q. No. I am trying to find out how he got to that island on that kind of a course.

A. Well, but if I am going to go back, and you want me to go back, you have got to give me the weather conditions so that I have something to work against.

Q. Why?

A. Everything. Now he has a fair wind with him, and when I turn around I will get that wind ahead. Now the wind is thirty miles an hour and he is going eight. You run before that at seven a half or eight. But we go against it and that would make a breeze of 22 miles and a half.

Q. That is over the ground, that is his speed over the ground?

A. That is the speed over the ground. The speed of the wind is over the water.

Q. Yes.

A. The speed of the wind is over the water. Now when I turn around I increase that breeze, providing I go on the same speed.

Q. We are wasting time on that captain. I do not mean I am going back over that course with my vessel at all

I mean to say that would be the course he actually did take in his log and landed on that little island.

A. Yes. And come back and go on the opposite course and come back to Tree Point.

Q. I don't want his vessel, I want to see how he got there with this course, if it is possible to get there with that course.

A. Why, he was on the course there, and it threw him out.

Q. What threw him out?

A. It must have been the elements that threw him out.

Q. Do you know what threw him out?

A. I was not there, I don't know.

Q. You don't know anything about it, captain. You simply surmise the elements must have thrown him out.

A. Yes.

Q. It might have been the quartermaster asleep at the wheel, might it not?

A. The captain on the lookout would see if the quartermaster was asleep, and would see the island.

Q. I am talking about the courses they were steering.

A. Well, it has been the custom on our tugs to manage to keep the quartermaster awake and keep him on his course.

Q. I am not speaking of your vessel. We are finding out now what made this man bring up on Mary Island on this course. Now what are the different things that could contribute to that result?

A. I was not on the vessel. I have been told the condition of the weather.

Q. You have been told the condition of the weather.

A. And I have been asked what I would do under the circumstances.

Q. Now I am going away from what you would do under the circumstances, and ask you what contributed to landing him on that island under this course, and under that condition of weather.

A. It must be something there that is unforseen. It might have been bad steering on the barge, that they were not capable of following him, and the tug was not able to see the tow at times. Let me give this little illustration, say this is the vessel and here is the tug. Now if the vessel hangs over here and the man cannot see her, that hawser is going to drag and by dragging he is going to fetch the tug up that way, and to keep on his course he has got to put his helm over to starboard. Naturally it is going to drag this way.

Q. To the westerly?

A. To the westerly.

Q. That would be one of the reasons that caused or may have contributed to his landing on the island?

A. And get over to the island.

Q. And what other causes are there, captain? Is that the only one that would put him on the island?

A. Well, I have been thrown over there and thrown over the other way.

Q. I am asking you as a mariner what are the causes that would contribute?

A. And I have looked at it and studied it up and have not seen anything that I could actually see.

Q. But I ask you as a seafaring man, under these conditions of weather, what different causes would contribute to piling him up on that little island?

A. I don't know whether he was steering magnetic course.

Q. You do not know whether he was or not?

A. From what I heard he was, but I was not there.

Q. You don't know anything about it?

A. I was not on the ship.

Q. If he was not steering such a course that might be one of the things that contributed. If he had not been steering a magnetic course, then that fact might have been one of the things that contributed?

A. That might be.

Q. There are lots of causes that could contribute?

A. Yes sir.

Q. But you must not emphasize the fact that that possibly the ship did not follow the tug, that is not the only fact?

A. But this man was on the boat and he certainly would watch the man steering, he would watch his compass.

Q. Well, there have been wrecks on the Alaskan coast where they did watch their compass?

A. Not that I know of.

Q. The coast is strewn with wrecks up there?

A. To a certain extent, there is quite a number of wrecks.

Q. North of Seymour Narrows to Cape Spencer, it is strewn with wrecks. Dozens of them piled on the rocks, of all sizes?

A. There has been. But they get ashore by different elements and bad steering.

Q. Some went on from bad steering and some from other causes?

A. More steering in foggy weather and snowy weather.

Q. But some of them otherwise, some of them carelessness?

A. Well, I haven't heard.

Q. You knew the Bertha, the little steamer Bertha, that belonged to the Alaska Commercial Company?

A. Yes sir.

Q. What is the waters just north of Queen Charlotte? Fitzhue?

A. Fitzhue Sound.

Q. Wide channel there, is it not?

A. Yes sir.

Q. Did you know of the Bertha piling, in fair weather, right up on the east coast there?

A. In Fitzhue Sound?

Q. Some 12 or 15 years ago.

A. In clear weather?

Q. Yes, clear weather?

A. No sir.

Q. This was negligence in steering.

A. I heard she was there ashore, but I did not hear she was ashore from negligence in steering.

Q. Now how will you determine whether that shackle is twice the strength of your hawser? You often furnish the shackle don't you?

A. No sir.

Q. The tug never furnishes the shackle?

A. No sir.

Q. Don't you know it is customary?

A. It is not customary for the tug to furnish the shackle.

Q. You simply furnish a hawser with an eye?

A. With an eye and timberlin.

Q. And up to the other fellow to make fast?

A. To make fast.

Q. You did not even make fast your hawser?

A. No sir.

Q. That is up to them?

A. Yes sir.

Q. Now looking backward, chronologically looking back into the time now, after we find that the tug Commodore got so close to the east shore of Mary Island that he had to put his wheel hard over suddenly, and that immediately following that the shackle broke on the barge and the barge went ashore, with the light of the results in view, what could have been done to save that situation?

A. To have saved the barge?

Q. No, not save the barge, but to save getting into such

a perilous position, now that we know what was done, and looking back over it now, what could we have done at any moment or a few minutes before that would have saved the situation?

MR. STRATTON: I object as immaterial.

Q. Knowing what happened to us in this condition of weather and this tug and tow, with the tug coming so close to the east shore of Mary Island, so close that in the judgment of the master it was necessary to put his helm hard over suddenly, and that our barge was piled up there by reason of the shackle parting. As we look back on it now, what could have been done which probably would have prevented the tug and the tow getting into that perilous position?

A. That he had that knowledge when he passed Tree Point, that he was going to get in there?

Q. No, I did not say that.

A. Well, if he had any knowledge that it was going to take him there, that knowledge will be as good weather as that he could see the dangers and avoid them.

Q. That is not answering my question. I might go into a dark place and stub my toe and fall and break my bones. I did not know there was anything to stubble there on, but after I had broken my bones, I can look back and see it would have been a good thing to have taken some precautions.

A. After you found out?

Q. Yes, what had happened. Now we know what the result was here. He came in near Mary Island and had to put his helm to clear himself from a perilous position to his tug and we know that our barge piled up on the reef there.

A. And if he had known that before hand?

Q. No, but knowing what we do now, looking back, what could he have done?

A. That is hard to understand, Mr. Gorham. I would like to answer as close as I can. Now if he had gone down there and was going over the same thing again, it is like you going in the place and breaking your bones. The next time you come you know there is an object there to stubble on, and you would avoid it. You are going to start over the road with the knowledge you did not have in the first place and you would take some precautions so you would not break your bones the second time.

Q. Would he?

A. I should think so. I would.

Q. If the tug came up that course that night and left the tow on the beach, would you do the same thing the next night?

A. No, I would not.

Q. With the same conditions or would you take a little more precautions than he took?

A. If I knowed it.

Q. There is the chart, he knows there is an island there.

A. I cannot answer that question. Of course if we know anything we are not going blindfolded into it. You are not going in to break your bones when you broke on it once.

Q. Not intentionally.

A. No. But when you went in that dark hole and stumbled around, you would say to yourself I am safe, but after you found out you were not safe, then it is easy to avoid it. There would be no accidents if we had fair warning and foresight.

Q. There might be still some accidents. But there would be less. Some accidents are inevitable, but there would be less, that is all, because we would take more precaution If this man did not blow his whistle, he did not know that he was near the island, did he, in a black night?

A. Well now, you taking an echo—

Q. Answer the question.

A. If you took that echo, you have a snowstorm and a thirty mile gale after you, it would be pretty hard to get an echo that would save you as you would under ordinary circumstances.

Q. We are not talking about ordinary circumstances or comparing it with ordinary circumstances.

A. But you don't get an echo with that kind of weather as you do in ordinary weather.

Q. I did not ask you about that either.

A. I cannot answer it.

Q. I am not making any contrasts.

A. I cannot answer.

Q. I say, if a few minutes before he had occasion to port his helm, he had blown his signals and got an echo he would have known better than he did?

A. Can you get an echo a few minutes time before he hit?

Q. It all depends what position he is in. If he is coming along the island or going into it, he ought to get an echo

A. You have studied this thing a good deal. Can you get it ahead the same as abeam?

Q. I will leave that to you, captain, I am not on the witness stand.

A. Well, I am not God Almighty, you know. But you not get an echo ahead the same as you can if you are am.

Q. Then if you were coming northwest, what would be the course along the land, captain, supposing you were coming along the land of Mary Island, would you get your echo abeam?

A. If coming along the island?

Q. If coming along the shore there.

A. Depends a good deal on the weather conditions.

Q. You were just saying you could get an echo abeam better than head on.

A. You can get an echo better when you have it abeam than head on.

Q. And if he had been coming along the shore there, he would get it abeam?

A. Will that course take him along the shore?

Q. I did not ask if that would take him along the shore. He would get it if he came along the shore?

A. Depends how close.

Q. Better than right ahead, would he not?

A. Than right head on.

Q. It would be wrong for him not to take that precaution?

A. To get her abeam—

Q. To try to get an echo?

MR. STRATTON: You mean if he was going abeam?

Q. If he was coming along the shore.

A. Well, if he would be parallel with the island and he figured he was down below there, it would be 12 and a half to sixteen miles, if he fetched over on the rocks, would not the man be dum—

Q. (MR. STRATTON): Which rocks, Black rocks?

A. Yes sir.

Q. (MR. GORHAM): He did not know where he was, captain?

A. He had an idea he was somewhere.

Q. If he had an idea he was on top of Mary Island, it would have been proper for him to find out how close it was, would it not?

A. If I had been there—

Q. We are not talking about you.

A. I was not on the ship.

Q. And if he left Tree Point and runs two hours and twenty-six minutes, eighteen miles, and has not picked up anything at all?

A. He never would think he was all right.

Q. It would be pretty near time for him to pick up that horn and if he did not pick it up or anything, he would not know where he was, would he, on a black night?

A. When his time was up, running out the distance, he would be trying for the horn, and probably head in for it.

Q. In order to pick it up?

A. Yes sir.

Q. Head in toward the light in order to pick it up.

A. Yes sir.

Q. So that he would change his course to the westward?

A. To clear that rock.

Q. Which rock. I say, if he had run his course out and felt he was in a safe position—

A. If he felt he was in a safe position—

Q. He could not pick up the light or horn at all, he would run in toward the island to pick it up?

A. I might have stayed there and waited.

Q. How long would you wait?

A. Well, it depends on circumstances.

Q. Well, under these circumstances.

A. I might go slow.

MR. STRATTON: You are speaking after he run his course?

MR. GORHAM: Yes, after he run his course of 18 miles.

A. Well he was clear then, was he not, when he had run 18 miles?

Q. He was on top of Mary Island at the end of the 18 miles.

A. After that you want me to explain?

Q. No, I ask you now, just before he got on that island, when he did not know where he was, he had practically run out 18 miles and did not pick up anything. What should he do?

A. He found out that he had run 18 miles by picking up the island. Before he had run sixteen miles in his own estimation.

Q. He found out he had run on the island at our expense, yes?

A. Did he know that was the island?

Q. He knew he had run 18 miles.

A. Did he discover that was the island?

Q. I am asking about what he should have done before he found he was in a precarious condition, before he was on the island.

A. Port his helm.

Q. What for?

A. To get clear.

Q. He did not know he was there until he saw the breakers.

A. That is the best thing he could do, to keep a sa course, as I understood the man headed out half a point.

Q. He did not know where he was, having run out l course of 18 miles, and seeing nothing. Now what should h do?

MR. STRATTON: The course from Tree Point to Mary I land is 20 miles.

Q. He had run out 18 miles.

A. He should run his distance; his distance is not miles.

Q. Yes it is.

A. Why he made his course for the island.

Q. He landed on it, yes.

A. I understood he made a course from Tree Point Mary Island light, and that is 19½ miles.

Q. He made that course so far as his log book is co cerned, but that did not keep him clear of this rock. You c put one thing in a log book and another on the water, in t operation of your vessel, cannot you?

A. No, we would not like to do that.

Q. I say you might. I am not speaking personally. mean it might be done?

A. Oh, it could be done. I don't think any master wi common sense would do it.

Q. I did not mean intentionally, captain.

A. If he says one thing, if he acted on one thing a puts down another thing, that man is not doing right.

Q. I did not mean it that way.

A. If he says he steered north west half west and he p it down on the log book, when he steered north west he not doing right thing.

Q. Let us assume he put down in his log book what thought he was steering, and his vessel fetches up here.

A. Yes.

Q. Now what about it?

A. Why, something unforeseen that has put him the

Q. Now with the lack of knowledge of these curre possibly it was the currents that made it?

A. No I don't think so.

Q. In other words the currents would not be a contrib ing cause to put him off his course.

A. Not from my experience.

Q. Then the currents are not very strong and do n amount to much, do they?

A. No, they don't amount to much.

REDIRECT EXAMINATION:

Q. (MR. STRATTON): From your observations in these waters, are the currents of the same velocity and in the same place at the same stages and conditions, on different tides?

A. No sir.

Q. Can a person determine in advance what set the currents is going to give to a vessel up in these waters?

A. Upon a flood tide if steering northwest we expect to be favored.

Q. I mean can a captain tell in advance whether he is going to be set to the eastward or westward on these?

A. I don't believe so. Of course I have been going many times up and down there. Sometimes they set that way and other times they set me over on the eastern shore, practically in the same weather and the same tide conditions.

Q. Now captain, if you had been master of that vessel that night and steered that course that captain Johnson did, that you said was the right course, would you at any time before 1:45, have been sounding a whistle to get an echo, or would you not?

A. Sounding a whistle to get an echo?

Q. For the purpose of getting an echo?

A. Why I would not expect to get an echo. But of course the whistle would have to be sounded.

Q. If foggy or because of thick weather?

A. Yes sir.

Q. I will ask you whether or not, captain, what the custom is in the waters of southeastern Alaska, with respect to the tug giving signals to the tow, when the tug is about to port or starboard the helm. Do you know what the custom is?

A. Why no, he generally follows the tug.

Q. Well, is it the custom to give signals?

A. No custom to give signals.

Q. Now I will ask you another thing, which I forgot on direct examination. Do you know what the custom is with reference to tugs in southeastern Alaska, using a log in the water to determine the speed of the vessel?

A. You cannot use it.

(Witness excused).

T. W. SMITH: the witness named in the foregoing stipulation being first duly sworn, testifies as follows:

Q. (By MR. STRATTON): What is your name?

A. T. W. Smith.

Q. What is your business?
A. Ship building and repairing.
Q. With whom are you associated?
A. The Ballard Marine Railway.
Q. What is your business with that concern?
A. Treasurer.
Q. What is its business? The Business of the Ballard concern?
A. The Ballard Marine Railway's business is repairing and ship building.
Q. Does it repair wooden vessels?
A. Yes.
Q. How long have you been engaged in that business?
A. A little over eight years.
Q. Where is its business located, in Seattle?
A. Yes, Ballard district.
Q. How long have you been connected with that company?
A. Eight years.
Q. What is your department, what is your business?
A. Estimating department, and treasurer.
Q. Estimating what?
A. Costs of building and repair work.
Q. Of wooden vessels?
A. Yes sir.
Q. Have you seen the barge Bangor?
A. Yes sir.
Q. State what experience, if any, you have had in estimating costs of repairs of various parts, including the bottom and keel, of vessels of that size and character, just briefly?
A. Well, our dock won't handle a vessel of that size. We never had a vessel as large as that. About as large a vessel as we can handle is a 150-foot vessel. This vessel is about 167 feet on the keel, something like 200 feet over all. She is larger than we can haul, lift from the water.
Q. Would the experience you have had in estimating on other vessels enable you to estimate accurately on vessels of this size?

MR. GORHAM: We object to that as calling for the conclusion of the witness. He may state his experience and the Court will determine.

Q. Answer the question?
A. Yes, I think I would.
Q. What is the difference, if there is any, in estimating the cost of repairs on a vessel the size of the Bangor, and

vessels the size of those you have been in the custom of estimating on?

A. Well, the costs would be in proportion, according to the amount of material and labor used, on a smaller vessel the same as on a large vessel.

Q. I hand you a copy of a statement made by Capt. Hubbard with respect to the cost of the repairs to the Bangor. I will ask you if you have seen this copy before?

A. I have.

Q. This afternoon, handed you by me?

A. Yes sir.

Q. Have you seen the Bangor this afternoon?

A. Yes sir.

Q. How much of an examination were you able to make of the Bangor?

A. Well, the examination would be nothing as far as the vessel was concerned. You cannot see the outside of the vessel. You could see some of the fastening in the inside that had been placed, but to see anything as to the actual condition of the wreck there would be nothing.

Q. Now, assuming that the material that is mentioned in Mr. Hubbard's statement there would have to be used, and that in the damaged portion of the vessel you would have to put in those materials, I will ask you if you are able to reasonably estimate the reasonable cost of making those repairs?

MR. GORHAM: We object on the ground that it is incompetent, the witness has not shown himself qualified.

Q. You may answer the question?

A. Well, I think so.

Q. Now, if you will take that list and make a statement of your opinion of the cost?

MR. GORHAM: Let the list remain as it is; I would not mark that paper up.

A. I will check it with the items I have been putting on, anything that I see that is any different I am just making a check mark, such as this, (Showing) anything I might find I make a check mark.

MR. GORHAM: I thought you were going to do some figuring.

MR. STRATTON: The check marks are the marks of the witness, any pencil marks are those of the witness.

MR. GORHAM: That is all right.

A. In going over the material, I would have to assume in the first place that all this material would have to be used.

Q. Yes, assume that.

A. In the first place, to get down to the labor work, the carpenters, "24 men 10 days, at $6.00 per day, $1,440.00," I would have to take a little exception to that, for this reason, that taking out any work that has been damaged we always use labor and fasteners, which is a cheaper rate than carpenters. These are listed here as $6.00 mechanics, which at the time this was made would be the regular rate for ship carpenters. Today we are paying carpenters $6.00 a day, and a fastener gets $4.00, and a laborer gets $3.00 and $3.50. I would have to make a little allowance on this so as to equalize the difference between a laborer and a carpenter. I would say that one-third of the work could be done by a good fastener.

Q. What difference would that make in that item?

A. In the actual item?

Q. What would be the difference in the cost of that labor?

A. Well, it would take eight men, to cut it one-third, it would take eight men at $4.00 a day off of the 24 for the ten days. That would be $320 for labor. Then you take 16 men at the $6.00 a day rate for ten days, $930; $1280 instead of $1440.

Q. That would be your estimate of the cost of labor then?

A. On that particular item.

MR. GORHAM: How much did you say?

A. The difference would be about $350.

Q. What would your estimate be, $1280?

A. Yes sir, $1280.

Q. All right; now, the next item.

A. The foreman at $10.00 a day. There is ten days there. That would be reduced about one-third.

Q. That would be $666 on that?

A. Yes.

Q. Instead of $1000?

A. Yes.

MR. GORHAM: That is $10.00 a day, $100.00.

Q. That would be $66.66 instead of $100, is that right?

A. Yes, one-third off. Now, those are about the only things that I have seen, which is the labor, and right straight through you will find—there is "32 men, 10 days,

at $6.00 per day" again is the next item, if I remember correctly—no, there is "Renewing Forefoot at forward end of keel for approx. 12 ft. 16x26" Timber for same, 768 ft.," "Labor Fitting and Installing same, 6 men 3 days"—three days each—"18 days, at $6.00." That would be the same as one man 18 days on that one forefoot. I think it is a little high on that.

Q. What would you estimate?

A. Well, I believe that could be lowered one-third on the different labors that could be used.

Q. He has got all $6.00 men. What is the item as he has got it on that?

A. "Renewing Forefoot"—

Q. I mean the amount?

A. Oh, he has $108.00

Q. And your's would be one-third less?

A. Yes.

Q. $36.00 less, from $108.00; your estimate would be $72.00 then, is that right?

A. Yes. The next item would be the 32 men for ten days.

Q. How much does he make that item?

A. $1,920.00.

Q. Figure it up and see how much you make it, please?

MR. GORHAM: Of course our objection to all this testimony is on the ground of incompetency.

MR. STRATTON: That is understood.

A. $1,280.00.

Q. Your's would be $1,280.00?

MR. GORHAM: What was his?

MR. STRATTON: $1,920.00.

Q. The next item, Mr. Smith?

A. The foreman there, ten days, $100.00 on that. I would leave that stand as it is "Caulkers, 10 men, 3 days, at $7.00 per day" is taken into consideration with the caulking of the forefoot and the scarphs, keel, and such like as that, and I would leave that as it stands, because those heavy garboards and scarphs and the keel—about the only thing I am taking any reference to here is where there could be a fastener used instead of a carpenter. That would make a little difference in it. Take the caulking of the top sides and the whole of the vessel, 19,500 lineal feet of seams at 20 cents per lineal foot, I would have to take an exception to that.

Q. What is the amount of that item of his in dollars the caulking?

A. $3,900.00.

Q. What is your opinion as to the proper amount of that item?

A. Well, I would say it would be one-third too high twenty cents a foot. That would put it to fifteen cents a foot. It would be $1,300.00 less than his estimate.

Q. $3,900.00 is his estimate?

A. Yes. It would be $2,600.00.

Q. That is your estimate?

A. Yes sir. I have got to take and assume that all of this is necessary to repair the ship, and the only thing I am taking exception to is that in this he is using the carpenters for everything, at the highest price. The caulking is being taken at 20 cents a foot, while all repair yards are bidding on 12 cents and 14 cents. Under the present conditions, the high price of things, I would give an extra cent in favor of the ship, and that would make it 15 cents a foot a lineal foot, and I am taking it for granted that there is that amount of feet there, which I cannot tell without seeing the ship to figure it up.

Q. What other items do you find?

A. That would be about the only thing I could give.

Q. I will ask you how many men your ship building concern employs, ordinarily?

A. Well, right at the present time we have got 96 men today on the payroll.

Q. And last year how many did you have, or last March?

A. Last March we were running about 100 men.

Q. What has been the average number of men, say the last four or five or six years?

A. Well, you take the last five or six years it would run down to probably about 30 men. Things were very quiet.

Q. And in making these estimates, these figures, you have assumed that all the material now there is necessary?

A. I have to, I couldn't do otherwies.

Q. And that the number of men and the time that they are employed to do the work is also necessary, you have assumed?

A. Yes sir.

MR. STRATTON: That is all.

CROSS EXAMINATION

Q. (By MR. GORHAM): You say you are treasurer of the Ballard Marine Railway?

A. Yes sir.

Q. And have been treasurer for eight years?

A. Yes sir.

Q. And that you are the estimator of the cost of repairs?

A. Yes sir.

Q. And construction?

A. Yes sir.

Q. What did you do prior to the eight years that you have been such treasurer?

A. Well, most of the time, part of the time, I was in a sawmill.

Q. And prior to that time?

A. Well, most of the time, part of the time, I was working in a ship yard.

Q. How long did you work in a ship yard?

A. Off and on probably three years, broken up.

Q. In what capacity?

A. Part of the time carpenter work, part of the time laying out, working with the men laying out, part of the time caulking, more of a handy workman around learning the business.

Q. And you have been the estimator of repairs at all times during this eight years?

A. Yes.

Q. So that eight years ago, with the knowledge you had at that time, you started in to estimate repairs for your yard?

A. Yes, for our yard.

Q. You know nothing about the condition of the vessel at the time at which these repairs were estimated?

A. No, I did not.

Q. Now, renewing keel and shoe in this statement, Item 1, wherein appears the item of labor, carpenters, 24 men, 10 days at $6.00, $1,440.00, you don't know how long it would take to strip the old material, do you?

A. To split it out?

Q. To strip it, I say?

A. To strip it off?

Q. Yes.

A. Well, naturally—

Q. I am asking if you know?

A. The only thing I could do would be take the figures that shows there and strike my estimate from that.

Q. Well, you don't know how many of those carpent employed for ten days were at that work, do you?

A. No.

Q. So you don't know how much in that labor item $1,440.00 would be absorbed by the cost of stripping?

A. No.

MR. STRATTON: Neither does Mr. Hubbard.

Q. What do you pay your foreman a day?

A. The foreman?

Q. Yes.

A. We pay him $7.00 a day.

Q. Well, if you pay them $7.00 a day and Mr. Hubb pays his foreman $10.00 a day there is not a third differe is there?

A. How is that?

Q. That would not make a third difference, would

A. No.

Q. A third would be 33 per cent?

A. Yes.

Q. Whereas the difference between $7.00 and $1 is only $3.00, which would be three-tenths.

A. I can tell you why, providing it is all right to you, why I figured a third.

Q. Yes, that is all right.

A. Is this, you take a foreman on a job that has his men broke in, he doesn't have to stay with that b of men all the time, he may have two or three jobs. W he puts a bunch of men to work he lays out enough w to last them quite a little while, several hours, and he go onto another job and do the same thing, and he work the different jobs all along and keep the men laid and working. What I am trying to do is just make near an estimate as I can of what I would do, what I w figure on the same jobs.

Q. You would not figure what you would do this w for without seeing the hull that you were to repair, w you?

A. No sir.

Q. And the other man's figures would be no crite to you?

A. No sir.

Q. Now, the same with the 32 men at ten days item of $1920.00, that is the second item in the statem "Renewing 210 Lin. Ft. Planking on Starboard Bilge 480 Lin. Ft. on Port Bottom," labor installing, "32 10 days, at $6.00 per day, $1920"; you don't know much of that time charged there is for stripping?

A. No.

Q. And you say you would allow 15 cents a lineal foot for caulking?

A. Yes.

Q. And that is a difference between your estimate and Mr. Hubbard's estimate in his statement of five cents?

A. Yes.

Q. And five cents is one-fourth of twenty cents, and that would not be a third off, would it?

A. About one-fourth, yes.

Q. What would that caulking mean with you as to the ship, for 15 cents?

A. Fifteen cents?

Q. Yes.

A. Well, that means cleaning seams, filling up and hardening.

Q. How many strands?

A. Well, it means finished work. It may be some vessel may take three, some four, and some five. Now, it means as to the amount just the same as he has figured the lineal work that is there to finish that ship, to finish it up. Some ships will take more and some less, more threads.

Q. But you estimate that no matter what they take it would still be fifteen cents?

A. Yes, it has got to be fifteen cents a foot for finished work, the same as he figures twenty cents a lineal foot for finished work. The ordinary contract is from twelve to fourteen cents all over the Sound for contract work.

Q. When?

A. The last year.

Q. What was it this year?

A. That is taking this year, this last year, up to the present time.

Q. You examined this vessel before?

A. I have been on her deck, yes, top sides.

Q. When was that?

A. That was, I think, in March, last year, February or March.

Q. 1916?

A. Yes.

Q. That was before this accident happened that is involved in this lawsuit?

A. Yes, 1917. It would not be March, 1916, but 1917, early this year, this spring.

Q. But before she was wrecked on Mary's Island?

A. Yes.

Q. What were you there for, for the purpose of estimating for repairs?

A. Yes, fixing up the hatch.

Q. Who was with you at that time?

A. If I remember correctly, I think Mr. Bryan. I made, I think, three or four trips to the vessel, two or three. I was there seeing the captain, and I met Mr.—I just forget his name—Mr. Mylroie at the vessel.

Q. And Mr. Bryan was there; with whom is he associated?

A. He is with the Marine Supply.

Q. What was he there for, do you know?

A. I think Mr. Bryan was there in regard to some sails and rigging. At that time we heard she was going to be re-rigged, and I think it was for the rigging and new sails.

Q. Did you hear Mr. Bryan pass any estimate on the value of the ship at that time?

MR. STRATTON: I object to that as incompetent, irrelevant and immaterial, not cross examination, and hearsay.

Q. You may answer the question.

A. I think I did at that time. I think Mr. Bryan was talking about these old vessels, everything being picked up and put in vessels, but I don't remember any amount that he said.

Q. You don't remember that?

A. I don't, no, but there was some talk. He mentioned something about vessels being re-rigged up and put to sea.

Q. Have vessels increased in value in the last two years?

A. Oh yes.

MR. STRATTON: I make the same objection and move to strike out the answer upon the ground that it is incompetent, irrelevant and immaterial, and not cross examination.

Q. Have vessels of this character of the barge Bangor increased in value in the last two years?

A. Yes sir.

Q. What percent of increase, do you know?

A. Well, it has been an awful percentage.

Q. What would it be, the marked value, I mean—of course that is what you mean, we are referring to market value?

MR. STRATTON: Up to the present time?

MR. GORHAM: Up to last March.

A. Well, I believe they have gone up 500 per cent on the market.

Q. A vessel of this character?

A. Yes.

Q. The barge Bangor?

A. Yes.

MR. GORHAM: That is all.

REDIRECT EXAMINATION

Q. (By MR. STRATTON): Assuming that this vessel is in the damaged condition which Mr. Hubbard's statement shows, what would you consider the value of that vessel if the damage had occurred last March, just as she stands?

MR. GORHAM: We object to that as incompetent.

MR. STRATTON: Counsel brought it out himself.

MR. GORHAM: He didn't see it, that is the trouble.

MR. STRATTON: That doesn't make any diderence, whether he saw it or not, counsel brought it out.

A. That is a question that intelligently I cannot answer, because there has been such enormous prices paid for vessels that the average man would say was not worth a dollar, that I could not say. I wouldn't want to put a value on the ship.

Q. If you were told that that vessel sold since last March for $7900 or thereabouts, would you say that it brought too big or too little a price?

A. Since last March?

Q. Yes.

A. Well, I don't believe that my judgment on that sale would allow me to put a valuation, because, as I said before, there has been such enormous prices paid for vessels, and a man that is not in that particular business is not posted enough to know what the valuation of floating stock is, because you might repair it and fix it up, but the actual valuation they are paying, what use they could put it to, would be beyond my ability.

MR. STRATTON: That is all.

MR. GORHAM: That is all.

(Witness excused.)

MR. STRATTON: We offer this copy of the statement in evidence as part of the examination of Mr. Smith.

MR. GORHAM: Yes.

(Paper marked Claimant's Exhibit No. 5 and returned herewith.)

CARL B. WINGE, the witness named in the foregoing stipulation, being duly sworn, testifies as follows:

Q. (By MR. STRATTON): State your name?
A. Carl B. Winge.
Q. What is your business, Mr. Winge?
A. Ship repairing.
Q. With whom are you associated?
A. King & Winge Ship Building Company.
Q. How long has that concern been in business in Seattle?
A. King & Winge, the firm of King & Winge was in business about eighteen years. We incorporated the company about two months ago.
Q. It is merely a successor to the former partnership?
A. Its successor.
Q. And you carry on the same business?
A. The same business.
Q. Has your corporation and the former partnership built wooden vessels by contract?
A. Yes, they have.
Q. Have they been engaged in the general repair work of wooden vessels during this entire eighteen years?
A. Yes.
Q. How long have you been associated with the company?
A. I have been associated with the company approximately five and one-half years.
Q. Were your relatives associated with it before you?
A. Yes.
Q. Who were they?
A. Mr. Winge.
Q. What relation to you was Mr. Winge?
A. I am his nephew.
Q. What has been your particular business since you have been down there during the last five years and a half?
A. Well, when I first went with the concern I worked in the yard, and then I afterwards worked in the office as bookkeeper, and the last year or so, the last two years, I have been estimating on work, and always have made the charges for the work that we have done.
Q. State whether or not during your experience your company has made repairs on vessels of the size of the Bangor, and larger?

A. Why no, not since I was there we haven't repaired any vessels of that size.

Q. What is the largest size of vessel that you have repaired since you were there?

A. We have repaired vessels—let's see—well, the cod fish fleet is about the largest type of vessels we have been able to handle.

Q. How long are they?

A. They are about, I imagine, 135 to 150 feet, 150 feet.

Q. Have you seen the Bangor?

A. Yes.

Q. How would the larger types of vessels that you have repaired compare in size with the Bangor?

A. Well, they are, of course, smaller, but the construction is about the same type.

Q. Would there be anything to cause any difference in estimating, or cause any difficulty in estimating the cost of repairs to the Bangor, any greater difficulties than estimating the cost of repairs to the vessels that you have been in the habit of estimating?

A. I don't believe so.

Q. If you will refer now to the exhibit referred to in Mr. Smith's testimony, being a copy of Mr. Hubbard's statement, I will ask you to assume that the material mentioned there is necessary to be used in the repairing of the Bangor, and state what your opinion is of the reasonableness of the various items mentioned in that statement, and if you disagree with any of those items state what in your opinion the amount should be?

A. Well, to begin with, I was unable, or am unable to determine the extent of the damage, and taking the figures—

Q. Assume that the damage as mentioned by Mr. Hubbard actually occurred?

A. Well, I believe in the first item, No. 1, that the work removing the keel and replacing same, I think that part of that work could have been done by men who were paid less than $6.00 a day.

Q. Is that the $1440.00 item?

A. Yes sir. Now, just how much I would not like to say, because I would not know the extent of the damage, the amount of tearing out that had to be done. I would judge about 25 per cent, anyhow.

Q. Twenty-five per cent off?

A. Twenty-five per cent off.

Q. That is, one-fourth of the $1440.00 off?

A. Yes. And the foreman item I noticed in here is in good many places. Now, to my ideas a foreman, one

foreman could practically handle that whole job, that is, the entire work that has to be done in this estimate, and basing the amount of lay days mentioned here, I believe it says "Dry Docking"—I believe that the amount of the foreman should be based on the time that the vessel is in repair, that is to say, one foreman to my knowledge, to my belief, could be used to take charge of all the work that is done on the boat.

Q. How much would that make of difference in the $100 item?

A. Of course I am unable here to judge the amount of men that he is figuring on doing this work. All this work is separately divided, that is to say, he has carpenters, 2 carpenters working ten days at $6.00 a day on the keel and scarphs. Now, he also has another item—

MR. GORHAM: Just give the number of the item so we can keep track of it.

A. (Continuing) Item No. 2, "Renewing planking," etc., and Item No. 3, "Renewing Garboard Plank." I would judge the foreman on the number of lay days that he has figured that the vessel would be in dry dock. Of course in that time the job would be completed, and I would base my foreman's time on the amount of days that the vessel was in the dock.

Q. Can you figure out how much difference that would make, how much you would reduce that estimate there on account of the matter you have just mentioned?

A. In the estimate he has 13 days charged for lay days, and in Item No. 1 he has ten days charged for the foreman; in Item No. 2 he has ten days for the foreman, had in Item No. 3 five days for the foreman, making a total of 25 days for the foreman, and 13 lay days would make a difference of 12 days of foremanship. There might be a question about that.

Q. That would be $120?

A. That would be $120.

Q. That is what you would reduce his estimate on account of the lay days for the foreman?

A. For the foreman, yes sir. Now, as to the price of the foreman, it is a matter of what the company's regular charges would be for that particular class of labor. We were charging at that time $7.00 a day, but, of course, it may be the foreman, the rate of the foreman may be higher at another institution.

Q. That doesn't make any difference, figure on a reasonable charge for the foreman, that is all. One man pays

a foreman an unreasonable wage is no reason why you should pay it.

A. I think $7.00 is a reasonable charge for the foreman.

Q. By reason of that $7.00 a day how much of a reduction would there be?

A. That would be about $39.00, I guess.

Q. $39.00 reduction. That is off of what item?

A. That is from all the foremanships, Items 1, and 3. Now, the only further thing that I can see, or that is, the only thing I can see about the estimate is that the labor was considered at the prevailing price at that time, in any carpenter work, that is, taking out the old, damaged lumber, or damaged timbers and replacing the same, that is figured as with carpenters at $6.00 a day. Now, I believe that part of that work could have been done for a little cheaper, that is, with the $4.00 men, but just about what it would be I cannot say because I don't know just the extent of the injury and damage.

Q. What in your opinion would be the fair reduction from that estimate—is that the $1920 item?

A. That is in the first item of $1440. I would figure about 25 per cent on all the carpenter items?

Q. Now, what are those carpenter items; one is the $1440 item?

A. One is the $1440 item, Item No. 1, and the $1920 item, Item No. 2. I guess that is about all.

Q. Now then, if you consider that that ought to be cut down 25 per cent, one-fourth of $1920 would be $480; subtract $480 from $1920 leaves $1440 as your estimate instead of the $1920. Now, what other items?

A. That is about all I could really give.

Q. Look at that oakum item of $3900?

A. Well, the prevailing charges on caulking bottom and top sides is figured on the basis—has been put to the present day figure on the basis of 12 cents, from 12 to 15 cents a foot.

Q. On vessels—

A. Of all kinds, all kinds of wooden vessels.

Q. Twelve to fifteen cents a foot, you would say then, would be the fair charge last March on that vessel?

A. Fifteen cents would be a good price, I believe.

Q. That would make it $2600, the same as Mr. Smith's?

A. Yes.

Q. Now, look at that $100 item up in No. 1, I think?

A. What is that, the foreman?

Q. Yes, foreman. That $100 item has been considered in your reduction of the foreman?

A. Yes.
Q. And the $108 item?
A. Yes.
Q. Is that considered in any of your former statements?
A. No, I didn't notice that.
Q. Just look at that?
A. Well, I believe to remove the old fore foot, take out the fastening and plugging the holes, and cutting out and shaping a new fore foot and refastening same, I think that the labor on that, I think three men could do that easily, three carpenters could do that in four days.
Q. That would be one man in 12 days at how much a day?
A. $6.00 a day.
Q. That would be $72.00?
A. Yes.

MR. STRATTON: That is all.

CROSS EXAMINATION.

Q. (By MR. GORHAM): You have been five years with this concern?
A. Yes sir.
Q. How long did you work in the yard?
A. Why, I worked about six months.
Q. And then how long did you work in the office as bookkeeper?
A. I worked in the office for about—well, I should say four and one-half years.
Q. So that would be five years altogether?
A. Yes.
Q. And you have only been with them five years?
A. No, I have been with them about five and one-half years.
Q. So that would leave you half a year after you got through bookkeeping—
A. Well, I was bookkeeper and estimator at the same time.
Q. When did you begin to be estimator?
A. About a year and a half ago.
Q. So you have had about a year and a half working as estimator?
A. Yes sir.
Q. On vessels of the codfish fleet?
A. No, I wouldn't say that, I have had experience in various classes of wooden vessels, small and large.

Q. How large, what tonnage?
A. Tonnage, about 280 to 300 tons.
Q. Your yard hasn't facilities for handling vessels of the size of the Bangor?
A. No.
Q. You say it does handle the codfish fleet?
A. We have, yes sir.
Q. What is the tonnage of the codfish fleet, per vessel?
A. I believe that the tonnage is somewhere around 200 tons. That is, they vary.
Q. From that down to what?
A. Well, 150 tons.
Q. How many 200-ton fishing vessels have you handled at your yard?
A. Well, about four or five large vessels.
Q. Now, the barge Bangor was formerly a schooner rigged vessel, wasn't she?
A. I believe she was. She looks as though she was.
Q. And built for oversea trade, that is, capable of oversea trade?
A. I imagine so, yes.
Q. And you would not say that a vessel of that construction was similar in construction to the codfish fleet, would you?
A. Why, yes, the codfish fleet are capable of going into the ocean.
Q. I didn't say that, I am not disputing that question, but you would not say just because both classes of vessels could go in any ocean that the construction is similar, would you, only one is larger than the other?
A. Just one is larger than the other.
Q. That is all?
A. Yes.
Q. Otherwise the construction is similar?
A. Of course every vessel is different.
Q. As a class?
A. As a class they are about the same.
Q. Belong to the same class of construction, would they?
A. No, I wouldn't say that, one is built for carrying lumber and the other is built for carrying another cargo.
Q. Fish?
A. Possibly. I don't know what they were originally built for, but that is what they are used for now.
Q. You would take 25 per cent off of Mr. Hubbard's labor items, would you?
A. I would.

Q. Why don't you say 22 per cent, or 27 per cent, how do you base it at 25 per cent?

A. I just estimate that.

Q. That is all, and on what do you estimate it?

A. On the fact that about 25 per cent of the work, I believe, could be done by—at least part of that work could be done by cheaper labor.

Q. But you don't know what part?

A. I don't know what part. I am just estimating.

Q. So that you are making a guess at it in taking 25 per cent off of Mr. Hubbard's labor estimate?

A. I am making just an estimate, that is all.

Q. Your estimate is a guess, isn't it?

A. Just about, yes.

Q. What is the custom in ship yards on Puget Sound, including yours, in charging an added percentage as profit to the yard for labor employed, how will it run?

A. Well, in the past the competition was very strong, and we were all working under a very low percentage, but a ship yard to operate at a profit should—we figure now, our present plant figures about 25 per cent on the cost of labor.

Q. On the cost of labor, so if Mr. Hubbard has included in his labor estimate 25 per cent as profit to the yard, then you don't think that should come off, do you?

A. He has not included 25 per cent.

Q. I say if he has?

A. The statement shows it is only 15 per cent.

Q. I say if he has then you think there should not be any reduction in the labor items of his bill, do you?

A. No, I don't think so

Q. That is, you don't think—

A. That is, at the present time. At that time—

Q That is what I mean, in March, 1917?

A. Yes.

Q. You would not make the deduction then of 25 per cent that you have testified in your direct examination?

A. Twenty-five per cent should be the profit, that is all there is to it.

Q. In other words, when you say that the labor cost to Mr. Hubbard's concern 25 per cent less than he has put in his bill, he could have done it for 25 per cent less than the amount of labor—

A. Including his profit, yes.

Q. That would be including his profit?

A. Including his profit, yes.

Q. Then if he hires a foreman for $6.00 a day, I mean

hires a carpenter for $6.00 a day, that includes the 25 per cent?

A. No.

Q. No. So if he only charges $6.00 a day on the bill he is entitled to charge more, isn't he, for yard profit?

A. Yes.

Q. So you don't know?

A. I don't know just what his charges are, but I presume they are the same as what everybody else is paying.

Q. Mr. Hubbard has testified that he has charged 15 per cent in addition for yard profit?

A. Yes.

Q. Items that you have discussed in there, labor items in that statement, are for so many men for so many days at such and such a rate?

A. Yes.

Q. And that includes the 15 per cent profit for the yard?

A. Yes.

Q. Now, if that is a fact what is your opinion now as to what should come off of those labor items, is it still 25 per cent?

A. Well, basing on the charge that he has made I presume or understand that he has charged a percentage of 15 per cent?

Q. Yes.

A. On the cost, making the $6.00 charge, including his profit?

Q. Yes.

A. Why, I really don't know just how much the deduction would be.

Q. Then if his foreman charge is $10.00 a day and that includes 15 per cent profit, you don't know how much should be deducted from the foreman's charge?

A. I don't know just what he pays his foreman, as I said before.

Q. And if the item of caulking at 20 cents a lineal foot includes 15 per cent profit to the yard, then you would not deduct from the item that he has got in there for caulking 20 per cent, would you?

A. Not if it included 15 per cent.

Q. When you are caulking a ship that has been strained, what do you do first?

A. Why, you clean out the old oakum.

Q. All of it?

A. Where it is necessary.

Q. Make a clean seam?

A. Try to, where it is necessary.

Q. And that is included in the 15 cents?
A. Yes.

MR. GORHAM: That is all.

REDIRECT EXAMINATION.

Q. (By MR. STRATTON): What was the reasonable profit to be charged by a yard last March for work of this character, on labor and material?

A. Well, that is a pretty hard question to answer. As I said before the conditions have been such that the matter of charges has not been one rate. We have found in our business that to work at a profit and to keep up our yard in good repair and make a profit that profit of 25 per cent on labor is essential to run our business, but as I say, the yards have been running as low as 15 per cent and possibly 10, and some no profit, but we are figuring at the present time at 25 per cent.

Q. But what do you think was the fair average that was charged by the concerns last March?

A. Well, I really don't know.

MR. GORHAM: What concerns?

MR. STRATTON: The ship repairing concerns.

MR. GORHAM: First class concerns, like this gentleman's and our's?

MR. STRATTON: Yes.

A. I could tell you just about. That is a gross profit that 25 per cent.

Q. You have to deduct all your expenses from that?

A. That is just a rate based on the labor, to take your profit.

MR. GORHAM: It is figured on the payroll, isn't it?

A. Yes.

Q. Your percentage at the end of the year will probably come down to seven per cent, figuring all your expenses, the net profit would be seven per cent?

A. Yes. I guess on an average of about between 15 to 20 per cent is about what they were basing the charges on, on labor.

MR. GORHAM: Profit to the yard?

A. That is the rate, gross profit.

MR. GORHAM: Just what do you mean by profit, is

it net profit or gross profit; the payroll is so much and you add 15 per cent to that?

A. Yes.

MR. GORHAM: And call it profit to the yard?

A. Profit to take in the expenses.

Q. But if you add 15 per cent to the cost of the material, why the expenses of operating the yard have got to be deducted from that as well as from the 15 per cent that you charge on the labor, and the net profit will be the difference?

MR. GORHAM: Objected to as leading.

A. Yes. Well, on material the general charge has been with everybody between 10 and 15 per cent, that is the general rate. Sometimes it goes as high as 20 per cent, but that is just gross profit, you know. The net profit is very hard to determine.

Q. In view of what you have said—the total estimate made by Mr. Hubbard was $11,750, which included a profit of 15 per cent—what amount would you deduct, if any, from that $11,750 so that the difference would leave what in your opinion would be a fair, reasonable and proper charge to be made for the work, labor and materials mentioned in Mr. Hubbard's statement?

MR. GORHAM: We object to that on the ground of incompetency, first, and on the second ground that it is not predicated upon an accurate statement of the facts, because the dockage charge, for instance, did not carry that 15 per cent profit to the yard, all the $11,750 did not carry that 15 per cent profit to the yard.

Q. You can answer the question. You can take those items you have mentioned and figure it up, if you can?

A. Well, in a general way I will say this, that if you mean net profit we take the total amount of $11,000, as you have there, and we will consider that as a sale, and in our business, in the ship repairing business, a net profit of ten per cent of the sales would be a very good profit.

Q. Well, what I am getting at, Mr. Winge, is what your total estimate is. Now, Mr. Hubbard has given his, $11,750, which includes his profit?

A. Yes.

Q. Now, I will ask you what your estimate is, including a profit of 15 per cent, which would include the same profit that is mentioned in this statement here, 15 per cent,

how much of a reduction would you make of this estimate that already includes the profit of 15 per cent?

A. I don't understand if that is net profit or gross profit.

Q. It is a 15 per cent profit. I don't know whether it is net or gross, it don't make any difference.

A. The overhead charges have to be absorbed out of it. It makes a very great difference, for this reason—

Q. Call it gross profit?

A. If it is gross profit there is nothing to take off that I can see.

Q. There is nothing to take off of these figures?

A. You said assuming that these figures are correct and that he has added a gross profit of 15 per cent—

Q. These figures include the gross profit of 15 per cent?

A. Yes.

Q. What are you going to do with this item of $3900; you subtracted $1300 from that and made it $2600, are you going to leave that?

A. I am going to answer your question the way you put the question, if that was a correct charge, including the 15 per cent gross profit, and I stated that it is.

Q. I don't think I made myself clear. This total of $11,750 in Mr. Hubbard's statement includes a gross profit of 15 per cent. Now, do you make your estimate of the reasonable cost of these repairs $11,750, or do you make them less, in view of what you have said concerning this item of $3900, which should be reduced to $2600, that the $1920 item should be reduced to $1440, that the $108 item should be reduced to $72, that the $1440 item should be reduced to $1080, and that there should be a reduction on account of lay days for foreman and overcharge for foreman of $39?

MR. GORHAM: Just a minute; this witness has testified that as far as the $3900 item was concerned he would not take off $1300, one-third, he would only deduct 20 per cent. the difference between 20 and 15.

MR. STRATTON: No, he said—

MR. GORHAM: Fifteen cents a lineal foot, and that is only 20 per cent.

MR. STRATTON: What does 15 per cent a lineal foot amount to, how many lineal feet are there there?

MR. GORHAM: $1300 is one-third of $3900. You can figure it out yourself, you have taken off a third instead of 20 per cent.

MR. STRATTON: $2925, that is the amount of his estimate.

MR. GORHAM: All right.

MR. STRATTON: We will put it $2925.

Q. I say, if that $11,750 includes Hubbard's gross profit of 15 per cent, and you have reduced the item of $3900 to what in your opinion it should be, that is, $2925, there is a difference there of $975 on that item, isn't there?

A. Yes.

Q. If in your opinion the $1920 item should be reduced to $1440 there is a difference there of $380, isn't there?

A. Yes sir.

Q. If the $108 item should be reduced to $72 then there is a difference of $36, isn't there?

A. Yes sir.

Q. If the $1440 item should be reduced, as you say, to $1080, there is a difference there of $360, isn't there?

A. Yes sir.

Q. Then in addition to that you said there should be a reduction of $39 on account of foreman, etc.,

A. Yes, $1890.

Q. In view of that statement what in your opinion would be a fair, just and reasonable charge to make for these repairs? The total amount was $11,750, and you made a deduction of $1890?

MR. GORHAM: Not on the same basis, though, because he made that reduction excluding the yard profit.

A. Well, it makes the amount come to $9860. Now, to be frank, I wish to say this; not knowing the true conditions of Mr. Hubbard's basic charges for labor, and assuming that he is using carpenters for all that wood work, why I believe that the reduction of $1890 will be correct. I am assuming that Mr. Hubbard is making a reasonable profit and is using a first class man for all the work that I went over.

Q. The fact that he charges $6.00 a day shows that, doesn't it?

A. Yes. That is what I assume, that is, that he is using first class labor for all of that work.

Q. But the fact that he charges $6.00 shows that he has?

A. Yes, it shows right there on the paper.

Q. There is no question about that, is there?

A. No, there is no question about it, it is in his figures.

MR. STRATTON: That is all.

RECROSS EXAMINATION:

(By MR. GORHAM): Now, you made a reduction of 25 per cent on your first examination on three labor items or two labor items, before you were confronted with the fact that Mr. Hubbard's labor items included 15 per cent. You thought he had too much labor there, but when you found that the item of labor which he had charged included a 15 per cent profit to the yard, then you did not find that he had as much excessive labor as you first thought, do you?

A. Well, I don't know what he had in the first place—

Q. No.

A. —but I based—he charged $6.00 a day, and I assumed that he is charging his regular profit on that at the time—

Q. Yes.

A. —and I am basing my 25 per cent reduction on the fact that the work could be done by cheaper men, at the rate of 25 per cent less.

Q. But you don't know how many men?

A. No, I do not.

Q. So that you haven't any right to say in regard to the $1440 item that he should take off 25 per cent, even on your theory that he could have had some of the men cheaper?

A. It is an estimate, as I said before.

Q. Just a guess?

A. Just an estimate.

Q. Isn't it a guess?

A. Well, if you want to have it that way, yes.

Q. I am asking you, I don't want to testify, I am asking you if it is not really a guess, to be frank about it, as you said a few minutes ago?

A. It is a guess, yes. I do not absolutely know, but that is my judgment.

Q. But you haven't anything to base your judgment on?

A. I haven't anything at all to base my judgment on.

Q. That is true of every other item you figured in the $1890?

A. No, it is not true as to the caulking.

Q. It is true as to the other items, though?

A. It is true about the carpenter items.

Q. Now, let us get to the foreman item; eliminating the deduction that you have made for time in excess of lay days it was $100; the $39. though, you deduct because you think it was an excessive time to charge?

A. Yes.

Q. At $10.00 a day?

A. Yes sir.

Q. But if in that charge he includes the 15 per cent profit then it would be less than $39, your guess, wouldn't it, that should be deducted?

A. Why, no, the $39, if I remember right, represents the difference between $10.00 and $7.00. is that it?

Q. Yes.

A. Why yes, I am inferring that the foremanship should be $7.00 a day.

Q. And then he would be entitled to 15 per cent on that, wouldn't he?

A. No, that includes the profit.

Q. The $7.00.

A. Yes.

Q. Don't you pay a foreman $7.00 a day?

A. No.

Q. How much do you pay a foreman?

A. That is, we pay them that now, but not at that time.

Q. In March?

A. In March, I think we paid our foreman $6.00 a day, in March.

Q. How about foremen in other yards, your yard charge is not the only criterion?

A. I don't know the charges in other yards.

Q. Now, when it comes down to caulking, if he charged 20 cents a lineal foot when you say the going rate was 15 cents a lineal foot, even taking it at 15 cents he is entitled to add 15 to 20 per cent on that, is he not?

A. No, figured at the rate of 15 cents a foot includes the profit.

Q. It does?

A. Yes.

Q. Profit to the yard?

A. Profit to the yard.

Q. How do you make that out, you didn't make that out a little while ago?

A. In caulking we estimate the amount of feet that a man can work a day—— —

Q. Yes.

A. —we take into consideration the amount of oakum that he uses, and the cement, etc., and then we estimate the amount of feet, and thereby—and add our profit, and then we get the rate per foot.

Q. Of 14 or 15 cents?

A. Yes, with the profit. That includes the profit.

Q. That includes the profit?

A. That has been the regular charge of all the shipyards.

Q. With no added percentage for yard profit?

A. All that includes—

Q. I say, with no added percentage for yard profit?

A. No.

MR. STRATTON: But it includes the profit?

A. It includes the profit. The 15 cents charge includes the profit.

MR. GORHAM: I think that is all.

MR. STRATTON: That is all.

(Witness excused.)

DISTRICT OF ALASKA, DIVISION NO. ONE, SS.

pages 13 to 722 inclusive

This is to certify that the foregoing is a true, complete and properly prepared statement of all of the testimony introduced upon the trial of said cause on the hearing on the merits in the above entitled court at Ketchikan, Alaska, on November 7 to 16, inclusive, 1917, together with all objections and exceptions made and taken to the admission or exclusion of evidence and all motions and rulings by the court thereon made upon said trial, together with the original exhibits offered and admitted in evidence upon said trial and consisting of

Libelant's exhibits A, B, C, D, D1, D2, D3, D4, D5, D6, D7, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W,

Libelant's exhibit with deposition A.

Claimant's exhibits 1, 2, 3, 4, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29,

Claimant's exhibits with depositions 1, 2, 3, 4, 5.

Dated, Juneau, Alaska, ~~December 1919.~~ January 13, 1920.

ROBERT W. JENNINGS,
Judge of District Court, District of Alaska, Division No. One, presiding at the trial of said cause.

Endorsed: Statement of Evidence, filed in District Court, District of Alaska, Division No. One, ~~December 1919.~~ Jan 13, 1920.

J. W. BELL, Clerk

By ~~Deputy Clerk~~

IN THE DISTRICT COURT FOR THE DISTRICT OF ALASKA, DIVISION NO. ONE.

In Admiralty. No. 295-K. A

A. W. MYLROIE, *Libelant*, vs. British Tug COMMODORE, her engines, boilers and machinery, tackle, apparel and furniture, *Respondent*.

MEMORANDUM OPINION.

William H. Gorham, Seattle, Proctor for Libelant;

Charles H. Cosgrove, Ketchikan, Proctor for Respondent.

Delivered September 30, 1918.

* * * * * * *

JENNINGS, Judge.

Libel by owner of the barge Bangor and cargo for damages sustained by reason of said barge going ashore on Mary Island while in tow of the tug Commodore. The towing was done by means of a cable from the tug fastened to a shackle at the bow of the tow. When tug and tow were near the island, the shackle parted, and the barge after drifting a bit finally struck, causing the damages complained of.

The theory of the libelant on which the case was tried was that (1) the tug suddenly put her wheel hard aport; (2) without blowing the whistle as a notice to the barge of such intended action; (3) thus subjecting the shackle to an undue sudden strain, causing it to part; (4) even if the aforesaid maneuver was called for and was executed without negligence, yet it was negligence of the tug to get itself into a position necessitating such manoeuvre.

The claimant contends (1) that no such manoeuvre was made by the tug before the shackle broke; (2) that even if such manoeuvre had been made, it was not negligence to fail to blow the whistle as a warning or notice to the barge; (3) that the shackle was not subjected to any undue sudden overwhelming strain; (4) that there was no negligence on the part of the tug or its officers causing it to get into the embarrassing position in which it found itself; (5) that even if there was negligence the contract of towage exempts the tug and its officers from liability.

I.

DID THE TUG PUT THE WHEEL HARD APORT BEFORE THE SHACKLE BROKE?

The first question, then, which calls for consideration is this, to-wit: Did the tug put its wheel hard aport before the shackle broke? To sustain the affirmative of this question libelant introduced the witness Croft, the quarter master of the tug, who on this point testified substantially as follows: "I was at the wheel in the pilot house when the towing device parted. I felt the jar. Just before this happened Captain Bjerre looked through the window and said 'Pull her over', and he jumped up and grabbed the wheel away from me and put it hard down. (p. 77) The wheel did not remain hard down for very long. I took the wheel right away from Bjerre, and in a few minutes he says, 'ease her up—ease her back again.' When I felt the jar I said to Bjerre 'What is going on? Has something happened?' And he said, 'Yes, we lost the tow.'" (p. 71 et seq.)

As contradicting this testimony the complainant *(sic)* introduced the witness Captain Bjerre, who was acting as pilot, Captain Johnson the master of the tug, and Sam Dawe, the mate of the tug. Captain Bjerre swears positively that the wheel was not put hard aport until after the shackle broke. He testified that immediately after the shackle had broken the tug made haste to help the drifting barge, and in its manoeuvre so to do found itself head on to the small island and in danger of piling up upon it, so they put their helm hard aport and "I presume that is the time that the quartermaster blamed me for taking the wheel away from him, which I did. I hadn't taken the wheel away from him at any time before that time. He was so slow I had to take the wheel. I am not sure what I told him, but I said he was too darned slow, and I asked him if he wanted me to lose the tug along with the barge. The wheel on the Commodore is a 6 foot wheel, and it takes 6 turns from hard over to hard over. A couple of strokes on this 6 foot wheel hasn't any effect on the boat at all, and therefore in a case of that kind there has to be pretty quick action. We ported the helm hard over and just got clear of the island. We could feel ourselves in the surf. After clearing the island the barge kept drifting and that island shut out the barge from our vision over here. We made a second turn and came back over here, and by that time the barge was around here, and we had the barge

opposite on the lee side of the island. We went over as close to the island as we dared to. There was a surf breaking here and the barge wasn't in a position where we were able to get her that night." (p. 136.)

The essential point of difference between the testimony of Croft and Bjerre is on the question as to whether the helm of the tug was put hard aport before or after the shackle broke. It should be borne in mind that whichever witness is to be credited on this point, the happening concerning which he testifies called for instant action, and that action was performed under circumstances not conducive to calm. According to Croft at least it was a period of dire apprehension. He says (page 79) "Just when he called to put the wheel over I looked through the window and I saw some mist on the water and that looked to me like it was the wash on the rocks." And later on he is asked, "Did you notice what direction the vessel was taking after the helm was put hard aport," to which he replied, "There were so many courses—there was about a thousand courses in 5 minutes." And later, "Everybody wanted to save the barge, didn't they? A. No, sir; everybody wanted to save his life. Q. Yours included? A. You bet your life; I don't want to die yet; I want to live a couple of years longer." He was evidently much excited.

According to Captain Bjerre the excitement, if any, was not over the losing of the barge but it was on account of the imminent danger of the tug striking the island in her manoeuvre to save the barge after the breaking of the shackle. Croft denied the giving of any stand-by signals to the engine room. Bjerre, Johnson, Dawe and Smith (the engineer) all contradict him and corroborate Bjerre. While Croft impressed me as being an honest man, and while I have no doubt that he was testifying according to his best recollections, yet I do not think that the libelant has established the point contended for by a preponderance of the testimony.

WITHOUT NOTICE TO THE TOW?

But assuming that the tug did "hard aport" immediately before the shackle broke, was such action without warning to the barge? No whistle was blown by the tug, it is true, but I think the clear preponderance of the testimony is to the effect that it is not usual, customary or necessary for a tug to whistle to its tow when the former contemplates porting its helm. Indeed some witnesses testified that such action is not proper, that it is dangerous.

(Bjerre, Johnson, Harriman, McRae;)

Jacobson deposition, p. 44;

Smith deposition, p. 72 ;

Brinker deposition, p. 99;

Olson deposition, p. 124;

Snoddy deposition, p. 156 (positive detriment to whistle).

But however that may be, it is clear that the failure of the tug to blow a whistle on porting her helm, if she did port her helm before the shackle broke, was not negligence causing the casualty. Foster, captain of the barge, witness for libelant, testifies that the tug carried a good, big high light; that he could see the light all the time from Tree Point up to the time the barge struck; the weather was "not so bad you couldn't see the light. Q. Why did the barge put her helm aport? A. Following the tug boat. Q. Then he must have seen the tug boat at 1080 feet, just as soon as the tug boat put her helm over? A. I seen the line when I came out on the deck—he certainly must have seen her." And then, "Any time you cannot see the line on the bow of the barge, there is a man put forward on the ship; it wasn't necessary to put a man on that night on the bow but it was just light enough to see to steer by." (p. 66). "A good man on the tow can see for himself and he is supposed to be there on the bridge as well as on the tug." (Jacobson, p. 59.) And further on, in answer to the question, "How would the man at the wheel of the barge from looking at the light of the tug on a dark night like that, know that the man at the wheel on the barge should put his helm aport," Captain Foster answered, "As I told you, the man seeing she is changing her course by the masts and the lights, and so he changes his course too, and the man on the barge is supposed to follow the tow line and on a night like that he is supposed to get his information by looking at the light on the tug to see which way the tug is going to change, and he does accordingly."

It is manifest that the strain is not increased at the very moment of porting the helm of the tug except perhaps by the increased slack, if any. The sudden strain comes at the moment when the distance traveled by the tug on its new course is sufficient to take up the slack of the line. When that moment does arrive necessarily the strain is increased, and that increase will, in the absence of a towing machines, be sudden, provided the barge has not like

wise ported its helm. How much time would elapse between the act of porting the tug's helm and the instant of sudden increased strain caused by the slack being taken up would, of course, depend on the speed of the barge and the tug. In the case at bar, there is no evidence that this period of time was too short for efficient action by the man at the helm of the barge.

III.

SUDDEN STRAIN.

Even if it be true that the tug ported her helm without sounding any signal to the tow, and that such action was ordinarily improper, still I cannot find as a matter of law, nor can I find as a matter of fact from the preponderance of the evidence, that it was negligence under the circumstances here presented to turn the tug abruptly and to fail to sound a signal for such turn.

This tug and tow are to go through the waters of Southeastern Alaska, themselves none too easy, up through the Gulf of Alaska, one of the most turbulent stretches of water in the world, out into the ocean and up into Cook's Inlet, at the period of the spring equinox. It is not unreasonable to expect that in the course of such a long voyage through so many waters, emergencies might arise necessitating abrupt turns of the tug at a time or under circumstances when no notice, or no timely notice, could be given to the tow. It is not reasonable to suppose that the owner of the towed barge would furnish a shackle which would not stand the strain of such a turn if circumstances should demand that such a turn should be made. If he does furnish such a shackle and he suffers loss by reason of the breaking of such shackle in such emergency, is the tug to be held liable?

The shackle in question was purchased by libelant about ten months before the accident——*whether it was new or second hand when purchased by him does not appear.* How much, if any, usage it had been subjected to before its purchase by libelant does not appear. It does appear, however, that it had been used on this barge as an appliance for towing for a distance of about 10,500 miles—three trips from Seattle to Anchorage and return, and also the trip from Seattle to the place of the wreck. Several ship-masters give instances of shackles breaking without other apparent cause than crystallization resulting from long usage, and instances of other shackles breaking

under strains in loads which they had a short time before borne with the greatest of ease.

Now, this shackle showed crystallization. Avis, the expert for libelant, says that crystallization comes only from sudden severe shock, and that the shackle in question "was broken by a stress very suddenly applied, which undoubtedly would have broken a shackle made from a much larger bar"; but Tinkham and Lingerfelt, experts for the claimant, deny this, testifying that the vibration which comes from much usage will in the course of time cause the iron in the shackle to become weakened by crystallization; and they are also of the opinion that the vibration of the aforesaid trips might have been sufficient to have caused the crystallization.

It is in evidence that the tug in the case at bar carried and had in use a towing machine of the most approved pattern, a device designed and effective for the elimination of those sudden jerks of the tow line which are caused by the sudden taking up of the slack when turns are made.

Bjerre Cann deposition, pp. 13-14

Johnson Jacobson deposition, pp. 34

Dawe Smith deposition, pp. 74-75.

Brinker deposition 98

Olson deposition, p. 122

Snoddy deposition, p. 139

Neilson deposition, p. 168

The shackle was part of the equipment of the barge furnished by the libelant. The latter at least contracted that the appliances furnished by him should be suitable and strong enough for all strains to which it was not unreasonable to expect it would or might be subjected.

The tug escaped, and if the barge had followed the tug it would have escaped. It did not follow the tug, because the shackle broke. The shackle broke because it was not strong enough to stand the strain. I am satisfied from the evidence that negligence cannot be ascribed to the tug for its action or non-action at or about the time the shackle did break.

IV.

NAVIGATION OF THE TUG.

But under the doctrine of the Wilhelm, 59 Fed. 169, reversing Wilhelm, 47 Fed. 89, the damage ensued not alone

because the shackle broke and not alone because the vessel was so near to Mary Island. It was caused by the happening (contemporaneously) of both those events.

This brings us then to the question, how did it come that the tug found itself so close to Mary Island? Did it come through an error of judgment on the part of its navigators, or through negligent navigation?

It is contended by libelant that the tug should have put into

PORT SIMPSON.

Captain Foster, testified that when the vessels passed Port Simpson the velocity of the wind was "I suppose probably 25 or 30 miles an hour" and the "weather was squally" (p. 11), but there is nothing in his testimony to the effect that it was bad seamanship to go by Port Simpson except his bare statement that in his judgment "the weather indicated that a stop should have been made there." (p. 35). Evidently, however, that judgment was superinduced by the fact of the after occurrences, for when asked the question, "What makes you think there should have been a stop at Port Simpson," he replied, "Well, probably it was talking about the situation, but it shows I was right in what did happen." (p. 36). Now, Captain Snoddy, master of the tug Amur which passed Port Simpson that night, having in tow a barge and a scow, saw nothing in the weather indications which would cause a prudent master to put in there at that time. "I would never think twice about it. I would have went right on." (Deposition, p. 137.) He did go right on without any mishap. Captain Bjerre saw no reason to put in at Simpson (157), nor did Captain Johnson.

Possibly it was an error of judgment not to put in to Port Simpson, but I cannot find that it was negligent seamanship.

TREE POINT.

The tug passed Tree Point at 11:19 P. M. This is the last point of departure before the wreck. Of course the degree of accuracy with which the point was located is a very important thing to be considered. The distance from the tug to Tree Point could not be determined from cross bearings, but the officers of the tug estimated the distance as between a half and three-quarters, possibly a mile,—(Bjerre, 129). Captain Foster, himself a veteran navigator who was in charge of the barge and who was a witness for

libelant, estimated the distance at three-quarters of a mile (34), and "considered that she had a good departure from Tree Point." He admits that the captain of the tug having the previous courses and distances would be better able to determine the distance than he was (35). If the distance was much greater that fact alone would be sufficient to account for the subsequent position of the tug, and yet if an error was committed in estimating the distance it was an error of judgment—at least I can find no evidence of negligence on this point.

COURSE FROM TREE POINT.

The course of the vessel was set by compass N. W. ½ W., and "that was the proper course for the estimated distance of that run." (Bjerre, 129). "The compass had a deviation of 2 degrees to the east, but that would not have made any appreciable difference in the run from Tree Point light to Mary Island light." (Foster, 44.) This was the "usual course of the Commodore to take over that run." (Bjerre, 129).

It may be that such course, if continued, would not have cleared Mary Island, but the testimony is that it was not continued. On the contrary Bjerre and Johnson testify, and the log bears them out, that the (compass) course of the tug was changed to N. W. about 1 A. M., the tug at the same time slowing down from 7½ (to 8) knots to about 5 knots. The testimony of Dawe, the mate, and Smith, the engineer of the tug as to the ringing of bells to the engine room in a way corroborated them as to this.

If the point of departure at Tree Point, as determined by Bjerre and Johnson, was approximately correct, and if the traveled course of the tug corresponded with the compass course and chart course, the tug would not have found herself dangerously near the island. This opinion has already disposed in the negative of the contention that the point of departure was negligently determined. Assuming, then, that the point of departure was correctly determined, is there any evidence of negligent navigation, as distinguished from errors of judgment, which would account for the tug being dangerously near to Mary Island? On this point

LOG

It is charged by libelant that the tug was negligent in not having a long out so as to determine more nearly the exact speed the tug was making. Captain Grant, for libel-

ant, says that good seamanship would have had a taffrail log attached to the tug so that the speed could be accurately determined, but on cross examination he admits that he does not know what the custom is in that respect but is speaking only of his own practice. Captains Cann (deposition p. 19), Jacobson (p. 42), Smith (p. 93), Brinker (p. 99), Olsen (p. 124), Nielson (p. 208) and others say virtually that the log is never used by tugs in these waters—some of them testify that it cannot be used to effect.

I think the preponderance of the evidence negatives the contention that failure to use a log is a want of ordinary care.

SOUNDINGS.

Libelant contends that the tug was negligent in that she took no soundings to ascertain whether she was nearing land.

On this point Captain Cann testifies that he would not have commenced any soundings before 1:45 (p. 29). "I think he was perfectly safe on that. I think the captain is the best man to judge that." (p. 28-29)—Jacobson (42) —See also Bjerre, p. 154.

LOOKOUT.

It is the contention of the libelant that Captain Bjerre looking out the window in the pilot-house of the tug discovered the near proximity of the island and immediately put the helm hard aport, thus breaking the shackle. It is libelant's further contention that if the tug had had a lookout stationed in the bow of the tug he would have seen the island in time, thus avoiding the necessity of any such sudden turn as is alleged to have been made on this occasion.

Now, even the most vigilant lookout stationed on the bow could not have done more than to ascertain the proximity of the land. This Bjerre did. The Court is asked to hold, however, that Bjerre did not discover the proximity of land early enough and that a lookout on the bow would have discovered land earlier than did Captain Bjerre not only earlier than Bjerre, but so much earlier as to obviate the necessity for an abrupt "hard aporting" of the helm. The Court could not hold that way without entering the domain of pure speculation. There is no evidence that a lookout on the bow of the tug could or would have

seen land or have heard breakers, if any such existed, before a lookout in the pilot-house would have done so, and there is a preponderance of the evidence to the effect that it is not usuual, customary or necessary for a tug such as the Commodore was to have any lookout on the bow of the vessel; and also to the effect that the pilot-house is the most efficacious place for a lookout. The Commodore, it is true, had not on the bow or in the pilot-house any one whose sole duty it was to act as lookout, but it did have an experienced man in the pilot-house who testifies that in fact he did keep *constant* look out.

Counsel for libelant cites many cases, among them a case from our Circuit Court of Appeals, to-wit: Wilder S. S. Co. vs. Low, 112 Fed. 161, where the Court said "for an officer to leave his vessel *entirely* without a lookout *especially when another vessel is known to be in the vicinity* is culpable negligence and approaches very nearly to the line of reckless navigation;" but what is there said was said with reference to the facts of that case, and not at all in the way of laying down an inflexible rule to measure all cases. Obviously every case must stand upon its own particular facts. If it be shown that a lookout on the bow of a tug is not usual, customary or necessary, or that a lookout from the pilot-house of a tug is better than, or as good as, a lookout on the bow, or if there is no evidence that the presence of a special lookout on the bow would have prevented the accident, how can it be said that in such case the absence of a lookout on the bow betokens "the absence of that degree of care" which an ordinarily prudent and careful man would exercise under the circumstances? And yet in the ordinary contract of towage that only is the degree of care obligatory on the tug.

The other cases cited by libelant were cases where a collision had happened which the Court held in those cases would not have happened except for insufficient look out. Now, in the case at bar the absence or the inefficiency of such lookout as libelant contends should have been had did not cause any collision. Whatever the character and situation of the lookout really was, it was good enough to enable the tug to avoid collision with the island, and it would have enabled the barge likewise to avoid such collision had not the shackle broken.

BLOWING FOR ECHOES.

It is contended that the master of the tug should have blown for echoes.

Captain Cann and other masters of tugs operating in these waters testified that the Mary Island light *must* be picked up, and that if after running the course and distance he did not pick it up he would haul in, sound and blow for echoes (25). There was no occasion to sound or to blow before 1:45, the time when the barge went adrift. (29). Captain Jacobson says that under the circumstances he would have been sure he "went right, without feeling uneasy at all' (42). There was no place to get any echoes before 1:45 (Olson, 121). Captain Snoddy would not expect to get echoes before 1:45 (151). There was not one continuous snow storm, although there were squalls of snow. Captain Bjerre testified that they could not have gotten an echo if they had tried because they were one half mile off shore and the wind was behind them and he had no reason to believe that he was out of his course (Bjerre, p. 155). He had steered this course many times before with the Commodore (177); so had Captain Johnson (229).

Thus it would appear that the barge broke away before the course had been run out and before there was any apparent necessity to blow for echoes: Besides, the blowing for echoes could not have done more than to indicate the presence of land. Now the land was actually seen (not merely indicated) and it was avoided. It cannot be predicated that with the wind blowing shoreward an echo would have indicated the presence of land before the land was seen—in such a wind it might have done so, and then, too, it might not have done so. "Blowing would do no harm and it might do some good" says Captain Snoddy (p. 153), but knowing, as we do, that the tug did see land and escaped it, it is, in the absence of evidence justifying a conclusion, idle to speculate upon what would have been ascertained and upon what would have happened, and when it would have happened, if the whistle had blown for an echo.

The question is not whether the master of the tug took every precaution which a common carrier of passengers is required to take, but rather did he omit to do something which ordinary care requires (meaning of course the highest care exercised by ordinarily prudent masters under the circumstances) and was that omission a contributing cause of the casualty? I feel that under the evidence this question must be answered in the negative as to each branch.

Should the tug have turned back? Libelant asks the Court to consider "whether or not it would have been good seamanship for the tug, *when it had run its course and time* and had failed to pick up Mary Island light, to at-

tempt to get an echo from a blast of its storm whistle; and *failing at such time to get an echo, to double back on its course.*

In the light of the finding that the tug had *not* run out of its course when the shackle broke, the question does not call for an answer. Perhaps, if, (or rather, when) he had run out his course and had failed to pick up the Mary Island light he would have done the very things libelant contends for. We cannot tell about that for the shackle broke before the time to do those things had yet arrived. I do not recall any evidence to the effect that he should have turned back. Running back over the same course (reversed) on which the ship had come would not have been without its attendant dangers—the same forces which put the ship out of course on its northward run would probably put it still further out on that northward run reversed, and there is Whale Rock and Little Rock.

(Depositions of Captains Cann, Jacobson, Olson, Nielsen, p. 174).

As I am unable to find from a preponderance of the evidence that there was any actionable negligence on the part of the tug, it is unnecessary to consider the question as to whether or not the contract of towage exempts, or could exempt, the tug and its officers from liability. Whether The Syracuse or The Oceanica is to be followed, the burden of showing negligence was on the plaintiff.

(6 Howard, 384; Fed. Cases No. 14329.)

Libel dismissed.

(Sgd.) ROBT. W. JENNINGS
Judge.

IN THE DISTRICT COURT FOR THE DISTRICT OF ALASKA, DIVISION NO. ONE.

In Admiralty. No. 295 K. A. —DECREE

A. W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, her engines, boilers, machinery, tackle, apparel and furniture, *Respondent,*

B. C. MILLS TUG & BARGE CO. LTD., *Claimant.*

At a stated term of the District Court of the United States for the District of Alaska, Division Number One

held at the Court Room in the Federal Building, in the Town of Ketchikan, in said District and Division, on the 7th day of November, 1917, present Honorable Robert W. Jennings, Judge, this cause having been heard on the pleadings and proofs, and having been argued and submitted by the advocates of the respective parties, and due deliberation had, and the court having filed his written opinion herein; and it appearing to the court that the said claimant has made out a sufficient and valid title to the British Tug Commodore, her engines, boilers and machinery, tackle, apparel and furniture.

IT IS NOW ORDERED, ADJUDGED AND DECREED BY THE COURT that the libel filed in the cause be dismissed, with costs to be taxed against the libelant and in favor of said claimant.

And on motion of proctors for the claimant, IT IS FURTHER ORDERED that unless an appeal be taken within the time limited and prescribed by law, the claimant's stipulations be canceled.

Done in open Court this 28th day of December, 1918.

ROBERT W. JENNINGS,
Judge.

Filed in the District Court, District of Alaska, First Division, December 28, 1918.

J. W. BELL, Clerk
By.....Deputy.

DISTRICT COURT,
DISTRICT OF ALASKA,
FIRST DIVISION. In Admiralty.
295 K. A.

A.W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, etc., *Respondent,*

British Columbia Mills Tug & Barge Company, a corporation, Claimant.

Order fixing amount of supersedeas and amount of bond for costs on appeal.

Agreeably to the written stipulation of the parties hereto this day filed herein,

It is ordered that the amount of the bond to be given by the above named libelant upon appeal, to cover costs on appeal and to act as a supersedeas, be and the same is here-

by fixed in the sun of $250.00 for costs on appeal and the further sum of $2500.00 to act as a supersedeas.

Dated, March 10, 1919.

ROBERT W. JENNINGS,
Judge

Filed in the District Court, District of Alaska, First Division, March 10, 1919.

J. W. BELL, Clerk.
By C. Z. DENNY, Deputy

DISTRICT COURT, DISTRICT OF ALASKA,
FIRST DIVISION,
In Admiralty.

A. W. MYLROIE, *Libelant*, *vs.* British Tug COMMODORE, etc. Respondent,

British Columbia Mills Tug & Barge Company, a corporation, Claimant.

NOTICE OF APPEAL.

To the British Columbia Mills Tug & Barge Company, a corporation the above named claimant, and to Charles E. Cosgrove, Esq., and Messrs, Farrell, Kane & Stratton, and A. C. MacNeill Esq., its proctors:

You and each of you will please take notice that A. W. Mylroie, the above named libelant, hereby appeals from the final decree of the above entitled court in the above entitled cause and from the whole thereof, which decree was made, entered and filed in the above entitled cause on the 28th day of December, 1918, to the United States Circuit Court of Appeals for the Ninth Circuit.

A. W. MYLROIE,
Libelant.

WILLIAM H. GORHAM
Proctor for Libelant.

Due service of the within notice of appeal after the filing of the same in the office of the Clerk of the *B* above entitled court, admitted this 4th day of March, 1919.

FARRELL, KANE & STRATTON,
Proctors for Claimant in said cause.

(The following is admission of service on certified copy of Notice of Appeal.)

Due service of the within notice of appeal after the filing of the same in the office of the Clerk of the *B* above entitled court, admitted this 15th day of March, 1919.

Filed in the District Court, District of Alaska, First Division March 10, 1919.

J. W. BELL, Clerk.
By C. Z. DENNY, Deputy.

DISTRICT COURT, DISTRICT OF ALASKA,
FIRST DIVISION,
In Admiralty.

A. W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, etc., Respondent,

British Columbia Mills Tug & Barge Company, a corporation, Claimant.

No. 295 K. A.

ASSIGNMENT OF ERRORS.

Comes now A. W. Mylroie, the above named libelant, and assigns as error in the findings and decree of the Court herein the following:

I. The court erred in entering a decree dismissing the libel.

II. The Court erred in finding that the libelant had not established by a preponderance of the evidence the point that the Tug COMMODORE put her wheel hard aport before the shackle of the barge broke, and in concluding that the burden was upon the libelant that the tug put its wheel hard aport before the shackle broke.

III. The Court erred in finding that it was not usual, customary or necessary for a tug to whistle to its tow when the tug contemplated porting its helm.

IV. The Court erred in finding that there was no evidence that the period of time between the act of porting the tug's helm and the instant of sudden increased strain caused by the slacking of the tow line being taken up was too short for efficient action by the helmsman on the barge.

V. The Court erred in finding that the libelant had not established by a preponderance of the evidence that it was negligence under the circumstances presented by the evidence to turn the tug abruptly and to fail to sound a

signal for such turn, and in concluding that the burden was upon the libelant to make such proof by a preponderance of evidence.

VI. The Court erred in stating that the shackle purchased by libelant showed crystallization.

VII. The Court erred in finding that negligence could not be ascribed to the tug for its action or non-action at or about the time of break.

VIII. The Court erred in finding that it was not negligent seamanship of the tug not to put into Port Simpson.

IX. The Court erred in finding that there was no negligent navigation by the tug which would account for the tug being up near to Mary Island.

X. The Court erred in finding that failure on the part of the tug to use the log was not a want of ordinary care.

XI. The Court erred in finding that there was no negligence on the part of the tug for failure to take soundings.

XII. The Court erred in finding that it was not usual, customary or necessary for a tug such as the Respondent COMMODORE was to have any lookout on the bow, and that the pilot-house is the most efficient place for a lookout.

XIII. The Court erred in finding that the pilot Bjerre in the pilot-house did in fact keep an efficient lookout.

XIV The Court erred in finding that the point of vision in the pilot-house was good enough to enable the tug to avoid collision with the Island and would have enabled the barge likewise to have avoided such collision had not the shackle broke.

XV. The Court erred in finding that the master of the tug in failing to blow his whistle for echoes did not omit to do something which ordinary care required.

XVI. The Court erred in finding that the failure to blow for echoes was not the contributory cause of the casualty complained of.

XVII. The Court erred in finding that the shackle broke before the time for the tug to double back on its course had arrived.

XVIII. The Court erred in finding that the tug had not run out of its course when the shackle broke.

XIX. The Court erred in not finding that there was negligence and want of reasonable care, caution and maritime skill upon the part of the tug in the performance of the towage service.

XX. The Court erred in not finding that the tug, without any lookout on station at about 2 A. M., March 26, 1917, off Mary Island in a heavy sea and snow storm, the tug being out of her course and under a full head of steam, reached the Island, put her helm hard over and suddenly changed her course to avoid the reefs and rocks of Mary Island, and by reason of the sudden strain due to the sudden change of course at full speed, the shackle connecting the tow line and barge was broken and barge went adrift and grounded on the Island where it became necessary to dump out and discharge part of her cargo and where she remained grounded for ten days and was then floated, towed to Ketchikan for temporary repairs, and then proceeded upon her voyage with such cargo as had been discharged and remained in specie.

XXI. The Court erred in not finding that the barge was in all respects seaworthy and properly equipped, manned, supplied and victualed for the voyage and was at the time the shackle broke following properly and carefully in the wake of the tug with a competent man at the wheel.

XXII. The Court erred in not finding that nothing could be done by those on the barge to prevent the shackle from breaking or the barge from drifting and grounding.

XXIII. The Court erred in not finding that immediately prior to and at the time that the tug ran onto the beach and grounded, and at all times thereafter, up to and including the date of the breaking of the shackle, the tug was not seaworthy in this, that it was improperly and insufficiently manned in this, that it had not then a sufficient number of members of its crew to enable it to station a proper lookout on the tug at any time, and especially at night.

XXIV. The Court erred in not finding that by reason of the sole negligence of the tug the libelant has been damaged in the sum of $33,560,47.

XXV. The Court erred in not finding that, a precaution demanded by good seamanship, to-wit, stationing a proper lookout on the bow of the tug and signalling the tow that the tug was about to change her course just immediately prior to the breaking of the shackle, had been omitted by the tug; that such omission was the cause of the

breaking of the shackle and the grounding of the tug and the consequent damage to the libelant, and in not including as a matter of law that the breaking of the shackle and the consequent damage sustained by libelant was the result of such omission, and that the burden was on the claimant to show that such omission did not contribute to such breaking of the shackle and consequent damages.

XXVI. The Court erred in not entering a decree in favor of the libelant and against the claimant and the sureties on its stipulation for the release of the Respondent Tug in the sum of $35,560.47, together with interest and costs of suit.

WILLIAM H. GORHAM,
Proctor for Libelant and Appellant.

Filed March 10, 1919.

DISTRICT COURT, DISTRICT OF ALASKA,
FIRST DIVISION,
In Admiralty.

A. W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, etc. Respondent,

British Columbia Mills Tug & Barge Company, a corporation, Claimant.

No. 295. K. A. Bond on Appeal.

Know all men by these presents: That we, A. W. Mylroie, the above named libelant, as principal, and Maryland Casualty Company, a Maryland corporation, as surety, are held and firmly bound unto the British Columbia Mills Tug & Barge Company, the above named claimant, in the full sum of Twenty-seven hundred and fifty ($2750) dollars to be paid to the said British Columbia Mills Tug & Barge Company, its successors or assigns, for which payment well and truly to be made we bind ourselves, our and each of our heirs, executors and administrators, and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 4th day of March, 1919.

Whereas lately at a district court for the District of Alaska, First Division, in a suit pending in said court between A. W. Mylroie, libelant and the British Tug Commodore, etc., respondent, British Columbia Mills Tug & Barge Company, claimant, a decree was rendered against

libelant and in favor of claimant, and said libelant having filed in the office of the Clerk of said district court and served on proctors for claimant in said cause, a notice signed by said libelant that said libelant appeals to the United States Circuit Court of Appeals for the Ninth Circuit from said decree;

Now, therefore, the condition of this obligation is such that if the above bounden principal shall prosecute his appeal to effect and pay the costs if said appeal is not sustained and if said principal will abide by and perform whatever decree may be rendered by said United States Circuit Court of Appeals for the Ninth Circuit in said cause, or on the mandate of said United States Circuit Court of Appeals for the Ninth Circuit by said district court, then this obligation to be void, otherwise to be and remain in full force and effect.

A. W. MYLROIE, Principal.
MARYLAND CASUALTY COMPANY,
By M. REESE, Attorney-in-Fact.
Surety. (Seal)

O. K.
W. B. STRATTON.

Approved March 10, 1919.

ROBERT W. JENNINGS. Judge.

Filed in the District Court, District of Alaska, First Division, March 10, 1919.

J. W. BELL, Clerk.
By C. Z. DENNY, Deputy.

DISTRICT COURT, DISTRICT OF ALASKA,
FIRST DIVISION,
In Admiralty.

A. W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, etc., Respondent,

British Columbia Mills Tug & Barge Company, a corporation, Claimant.

No. 295 K-A.

Order for sending up original exhibits.

Agreeably to the written stipulation of the parties hereto this day filed herein, and it being in the opinion of

the presiding Judge undersigned, deemed proper that the Clerk of this court in making up the record on appeal herein shall include therein as a part of the record the originals of all the Exhibits introduced in evidence herein instead of copies thereof;

It is now by the undersigned presiding Judge in said court ordered that all the original exhibits introduced in evidence and filed herein be sent up by the Clerk of this court as a part of the record on appeal herein to the United States Circuit Court of Appeals for the Ninth Circuit, instead of copies thereof.

Dated March 10, 1919.

ROBERT W. JENNINGS.

Judge of the above entitled court.

O. K.
W. B. STRATTON.

Filed in the District Court, District of Alaska, First Division, March 10, 1919.

J. W. BELL, Clerk.

By C. Z. DENNY, Deputy.

DISTRICT COURT, DISTRICT OF ALASKA,
DIVISION NO. ONE.

In Admiralty.

No. 295K-A

A. W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, etc. Respondent,

It is hereby stipulated by and between the parties to the above entitled cause:

That the libelant may have ninety days from and after the date of the adjournment of the court for the term within which the decree dismissing the libel in said cause was entered, within which to have reduced to form, settled and allowed a bill of exceptions in said cause with or without an order of court therefor; and that libelant may have an order of court therefor entered before said date of adjournment if such adjournment has not taken place or thereafter at any time within said ninety

days with the same force and effect as if the same were entered before such adjournment.

Dated, Seattle, Washington, January 2, 1919.

WILLIAM H. GORHAM,
Proctor for Libelant.

FARRELL, KANE & STRATTON,
Proctors for Respondent and Claimant.

Upon reading the above stipulation it is ordered that libelant have 90 days from and after the date of adjournment of the court for the term within which the decree dismissing the libel in above entitled cause was entered, within which to have ~~rendered~~ to form, settled and allowed a bill of exceptions in said cause.

Dated January 18th, 1919.

ROBERT W. JENNINGS, Judge.

DISTRICT COURT, DISTRICT OF ALASKA,
DIVISION NO. ONE

A. W. MYLROIE, *Libelant and Appellant*, vs. British Tug COMMODORE, etc., *Respondent* and *Appellee*.

No. 295K-A

It is hereby stipulated by the parties hereto:

That the libelant and appellant above named may have four months from and after June 16th, 1919, within which to have reduced to form, settled and allowed, a bill of exceptions in said cause; and

That an order may be entered herein by the Judge who signed the citation on appeal herein extending and enlarging the time of libelant and appellant for filing the record and docketing said cause on appeal in the United States Circuit Court of Appeals for the Ninth Circuit, to and including November 16th, 1919.

Dated, Seattle, May 27th, 1919.

WILLIAM H. GORHAM,
Proctor for Libelant.

FARRELL, KANE & STRATTON,
Proctors for Respondent and Claimant.

Upon reading the foregoing stipulation, and good cause being shown, it is by the undersigned, the Judge who signed the citation on appeal in the above entitled cause,

Ordered that the libelant and appellant may have fou months from and after June 16th, 1919, within which t have reduced to form, settled and allowed, a bill of excep tions in said cause;

And it is further Ordered, that the time of libelant an appellant for filing the record and docketing said cause o appeal in the United States Circuit Court of Appeals for th Ninth Circuit, be and the same is hereby extended and en larged until and including November 16th, 1919.

Dated at Juneau. Alaska, June 2, 1919.

ROBERT W. JENNINGS.
Judge of the District Court of th
District of Alaska, Division No. On

DISTRICT COURT, DISTRICT OF ALASKA,
DIVISION NO. ONE.

No. 295K-A

Stipulation and Order

A. W. MYLROIE, *Libellant* and *Appellant*, vs. British Tu COMMODORE, etc., *Respondent* and *Appellee*.

It is hereby stipulated by the parties hereto:

That the libelant and appellant above named may hav two months from and after October 16th, 1919, within whic to have reduced to form, settled and allowed, a bill of e ceptions in said cause; and

That an order may be entered herein by the Judge wh signed the citation on appeal herein extending and enlargi the time of libelant and appellant for filing the record an docketing said cause on appeal, in the United States Circu Court of Appeals for the Ninth Circuit, to and includi January 2nd, 1920.

Dated, Seattle, September 25th, 1919.

WILLIAM H. GORHAM,
Proctor for Libelant and Appella

FARRELL, KANE & STRATTON,
Proctors for Respondent and Appell

Upon reading the foregoing stipulation, and good cau being shown it is by the undersigned, the Judge who sign the citation on appeal in the above entitled cause,

Ordered, that the libelant and appellant may have two months from and after October 16th, 1919, within which to have reduced to form, settled and allowed, a bill of exceptions in said cause; and

It is further Ordered, that the time of libelant and appellant for filing the record and docketing said cause on appeal in the United States Circuit Court of Appeals for the Ninth Circuit, be and the same is hereby enlarged and extended until and including January 2, 1920.

Dated, Juneau, Alaska, October 4th, 1919.

ROBERT W. JENNINGS.
Judge of District Court of District of Alaska, Division No. One.

DISTRICT COURT, DISTRICT OF ALASKA,

DIVISION NO. ONE.

No. 295K-A

Order.

A. W. MYLROIE, *Libelant*, *vs.* British Tug COMMODORE, etc., Respondent,

Upon reading the stipulation of parties hereto dated November 26, 1919, (Sic) filed herein, and good cause being shown,

It is, by the undersigned, the Judge who signed the citation on appeal in the above entitled cause,

ORDERED, that the libelant and appellant in the above entitled cause may have one month from and after December 16, 1919, within which to have reduced to form, settled and allowed, a bill of exceptions in said cause:

It is further ORDERED, that the time of libelant and appellant in said cause for filing the record and docketing said cause on appeal in the United States Circuit Court of Appeals for the Ninth Circuit, be and the same is hereby enlarged and extended until and including March 1st, 1920.

Dated, Juneau, Alaska, December 3, 1919.

ROBERT W. JENNINGS,
Judge of the District Court of District of Alaska, Division No. One.

O. K., W. B. S.

DISTRICT COURT, DISTRICT OF ALASKA,
DIVISION NO. ONE.

No. 295K-A

A. W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, etc. Respondent,

British Columbia Mills Tug & Barge Company, Ltd., a corporation, Claimant.

Praecipe for Apostles on Appeal.

To the Clerk of the above entitled Court:

Herewith I hand you 50 printed copies of the Apostles on Appeal to the United States Circuit Court of Appeals for the ninth Circuit, in the above entitled cause, consisting of the following:

1. A caption exhibiting the proper style of the court and the title of the cause;

2. A statement showing:

the time of the commencement of the cause;
the names of the parties;
the names and addresses of counsel;
the several dates when the respective pleadings were filed;
the property attached and an account of the proceedings thereunder;
the time when the trial was had;
the name of the Judge hearing the same;
whether referred to a commissioner or commissioners;
date of the entry of final decree;
date when notice of appeal was filed;

and copies of:

3. All pleadings;

4. All testimony and other proofs;

5. Memorandum of Opinion of the Court on the merits;

6. Final decree;

7. Order fixing amount of supersedeas;

8. Notice of Appeal;

9. Assignments of Error;

10. Bond on appeal;

11. Order sending up original exhibits;
12. Orders (four) enlarging time within which to have reduced to form, settled and allowed a bill of exceptions and statement of the evidence in said cause and enlarging time for filing the record and docketing said cause on appeal in the United States Circuit Court of Appeals for the Ninth Circuit;
13. This praecipe, duly indexed, one copy of which you will please certify under your hand and the seal of said District Court and the remainder of which bear such certificate in printed form, and all of which you will please forward, together with the original exhibits under a separate certificate by you, to the United States Circuit Court of Appeals for the Ninth Circuit, at San Francisco, California, for filing and the docketing of said cause on appeal therein.

Dated, January 13, 1920.

WILLIAM H. GORHAM,
Proctor for Libelant and Appellant.

Service of within Praecipe on this .... day of ....., 1919, admitted.

Proctors for Claimant and Appellee.

DISTRICT COURT, DISTRICT 0F ALASKA, DIVISION NO. ONE.

No. 295–KA.

A. W. MYLROIE, *Libelant, vs.* British Tug COMMODORE, etc., Respondent.

British Columbia Mills Tug & Barge Company, Ltd., a corporation, Claimant.

District of Alaska, Division No. One.—ss.

I, J. W. Bell, Clerk of the District Court for the District of Alaska, Division No. One, do hereby certify the foregoing printed pages, numbered 1 to 748, inclusive, to be a full, true, correct and complete copy of the record and proceedings in the above entitled cause as is called for by the praecipe of the libelant and appellant, as the same remain on record and on file in the office of the Clerk of said Court, and that said printed pages together with the original exhibits, separately certified, constitute the record on appeal from the final decree of the District Court, District of Alaska, Division No. One, to the United States Circuit Court

of Appeals for the Ninth Circuit at San Francisco, California;

I further certify the following to be a true, full and correct statement of all expenses, costs, fees, and charges incurred and paid in my office by and on behalf of libellant and appellant for making the record, certificate or return and apostles on appeal to the United States Circuit Court of Appeals for the Ninth Circuit in the above entitled cause, to wit:

Clerk's fee, for making record, and apostles on appeal $457.3
3049 folios at 15 .....
Certificate of Clerk to transcript of record.....
Seal to said certificate.....
Certificate of Clerk to original exhibits.....
Seal to said certificate.....
Statement of cost of printing said transcript, collected and paid ..... 1140.

I hereby further certify that the above cost for preparing, certifying and printing said record amounting to $1598.95, has been paid me by William H. Gorham, Esq. Proctor for Libelant and Appellant.

I further certify that I hereto attach and herewith transmit the original Citation issued on appeal in said cause.

In testimony whereof, I have hereunto set my hand and affixed the seal of said District Court, at Juneau, Alaska this 22 day of January, 1920.

J. W. BELL,
Clerk.

[Endorsed]: Printed Apostles on Appeal. Filed February 17, 1920. F. D. Monckton, Clerk.

A. W.

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Filed Feb-

No. 3448

United States
Circuit Court of Appeals
For the Ninth Circuit.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation,

Appellee.

Upon Appeal from the United States District Court for the District of Alaska, Division No. 1.

PROCEEDINGS HAD IN THE
UNITED STATES CIRCUIT COURT OF APPEALS
FOR THE NINTH CIRCUIT.

At a stated term, to wit, the October term, A. D. 1919, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Monday, the seventeenth day of May, in the year of our Lord one thousand nine hundred and twenty. Present: The Honorable WILLIAM B. GILBERT, Senior Circuit Judge, Presiding; The Honorable ERSKINE M. ROSS, Circuit Judge; The Honorable WILLIAM HUNT, Circuit Judge.

No. 3448.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation,

Appellee.

Order of Submission.

ORDERED appeal in the above-entitled cause argued by Mr. William H. Gorham, proctor for the appellant, and by Mr. W. B. Stratton, proctor for the appellee, and submitted to the Court for consideration and decision.

At a stated term, to wit, the October term, A. D. 1920, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Monday, the fourth day of October, in the year of our Lord one thousand nine hundred and twenty. Present: The Honorable WILLIAM B. GILBERT, Senior Circuit Judge, Presiding; The Honorable ERSKINE M. ROSS, Circuit Judge; The Honorable WILLIAM W. MORROW, Circuit Judge.

IN THE MATTER OF THE FILING OF CERTAIN OPINIONS AND OF THE FILING AND RECORDING OF CERTAIN JUDGMENTS AND DECREES.

By direction of the Honorable William B. Gilbert, Erskine M. Ross, and William H. Hunt, Circuit Judges, before whom the causes were heard, ORDERED that the typewritten opinion this day rendered by this Court in each

of the following-entitled causes be forthwith filed by the clerk, and that a judgment or decree be filed and recorded in the minutes of this court in each of the said causes in accordance with the opinion filed therein: * * * A. W. Mylroie, Appellant, vs. British Columbia Mills Tug & Barge Company, a Corporation, Appellee. No. 3448. * * *

In the United States Circuit Court of Appeals, for the Ninth Circuit.

No. 3448.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation,

Appellee.

Opinion U. S. Circuit Court of Appeals.

UPON APPEAL FROM THE UNITED STATES DISTRICT COURT, FOR THE DISTRICT OF ALASKA, DIVISION NUMBER ONE.

Before GILBERT, ROSS, and HUNT, Circuit Judges.

The appellant as owner of the barge "Bangor" and cargo, brought this libel in the court below against the appellee Tug & Barge Company, for damages sustained by reason of the barge going ashore on Mary Island while in tow of the appellee's tug "Commodore."

The libel, as twice amended, alleged in substance the barge to be a vessel of 511 gross registered tons, and that it was at all times in question staunch and seaworthy, and properly equipped, manned, and supplied for a voyage from the port of Seattle in the State of Washington, to the port of Anchorage in the District of Alaska, of which barge the libelant was the sole owner; that on March 22, 1917, the barge, laden with a cargo of lumber and general merchandise, of the greater part of which the libelant was the owner, and of the remainder of which he was the lawful bailee for hire, sailed in tow from Seattle bound for Anchorage, Alaska, and by agreement of the respective parties to the libel was on the way picked up by the tug and taken in tow for the rest of her voyage to Anchorage; that the tug proceeded with the barge in tow, arriving off Port Simpson, British Columbia, at about 5 P. M. of the evening

of the 25th of the month, without accident or casualty, the glass then being low and the wind east southeast, and rising; that the tug with the barge in tow proceeded on the voyage, without any lookout stationed on the tug, at about two o'clock in the morning of the 26th of March, 1917, still off and close to the east shore of Mary Island, in the waters of southeastern Alaska, in a heavy sea and snowstorm, and with the wind blowing east southeast at the rate of about sixty miles an hour, said tug with the barge in tow then being out of her course and being under a full head of steam and sighting land, through the negligence and want of reasonable care, caution and maritime skill upon the part of those in charge of her, put her wheel hard over and suddenly changed her course to avoid the dangers of reefs and rocks on the east shore of Mary Island, and by reason of the sudden strain and to the sudden change of course of the tug at full speed, the shackle to which the tow-line from the tug was attached was broken and the barge went adrift; that immediately the barge's bow anchor was hove out with 55 fathoms of chain which fetched the barge up, after which, by reason of the force of the wind and sea, she drifted in about twenty minutes on the east shore of Mary Island, where about two and one-half hours after being cast adrift she finally grounded—resulting in the damage for which the libel was brought, aggregating $33,562.47.

The libel as amended further alleged that at the time the tow-line parted the barge was following properly and carefully in the wake of the tug and obeying all her directions, and that there was a competent man at the wheel on the barge; that nothing could have been done by the barge to prevent the shackle from parting or to prevent the barge from drifting and grounding, all of which was caused solely by the negligence and want of reasonable care, caution, and maritime skill on the part of those in charge of the tug; that immediately prior to and at the time the tug picked up and took the barge in tow as alleged, and at all times thereafter during the voyage and towage, up to and including March 26th, 1917, the tug was unseaworthy in that it was improperly and insufficiently manned, and had not a sufficient crew to enable it to station a proper or any lookout on the tug at any time, and especially at night.

By his second amendment the libelant alleged in substance that at the inception of the towage the tug was unseaworthy and was insufficiently manned in that she did not have a sufficient crew to maintain a legal lookout on the vessel during the voyage.

In its amended answer the respondent and claimant, after making certain admissions and denials, set up a written con-

tract under which it alleged the towage in question was done, the pertinent provisions of which are as follows:

"MEMORANDUM OF AGREEMENT made the 14th day of March in the year of our Lord one thousand nine hundred and Seventeen, Between the B. C. MILLS TUG & BARGE CO. LIMITED, whose registered office is situated in the City of Vancouver, in the Province of British Columbia (hereinafter called 'the Tug Company') of the one part, and ANCHORAGE SUPPLY CO. of Seattle, Washington, and Anchorage, Alaska (hereinafter called 'The Charterers') of the other part.

"WITNESSETH—

"1. That the Tug Company agree to tow during the spring, summer and autumn of the year 1917 the barge 'Bangor' on a succession of round trips between the Western Boundary Line of United States Waters, and Anchorage, Alaska, for the sum of $4,500.00 for each such round trip, the said Barge to be loaded on the North bound trip and light on the South bound or return trip.

"2. The Tug Company will employ their tug 'Commodore' in said service barring accident to hull and/or machinery, Government requisition, or other causes beyond the control of the said Tug Company.

"3. That the Tug will render to the said Barge 'Bangor' reasonable assistance from time to time in any emergency which might arise, and whilst discharging at Anchorage the Tug is to be within call of the Barge at all times to render such reasonable assistance in case of any emergency which might arise. *The Tug Company is not to be held liable for any damage which might happen to the said barge 'Bangor' or its cargo while in tow or at anchor.*

"4. A round trip is to be considered completed on return of said Barge 'Bangor' at Western Boundary Line of United States Waters off the Southern entrance to Plumper Sound, and the said sum of net $4,500.00 shall be paid by the Charterers to the Tug Company on completion of each round trip and before another is commenced."

The amended answer further alleged that the respondent

"with its said tug proceeded with said barge in tow until early in the morning of the 26th day of March, 1917, when, in the neighborhood of Mary Island, in the waters of Southeastern Alaska, and during a heavy wind and snowstorm, and without any fault or negligence of any kind on the part of the said tug or those in charge of her navigation, and not on account of any

defect in any of the machinery or towing appliances of the said tug, but solely *through the force of said storm and of a defect in the equipment of said barge*, the said barge broke loose from said tug and grounded in the vicinity of the east shore of Mary Island. That all of the damage and injury which was sustained by said barge and her cargo, and by the libelant herein, was a direct and proximate result of the force of said storm and wind and *of the defect in the equipment of said barge*, and for causes *wholly beyond the control of the said tug*, or those in charge of the navigation thereof or of this respondent. That by reason of the terms and conditions of said memorandum of agreement of March 14th, 1917, hereinabove set out, and under which said towage services were being performed by said respondent and its said tug, and by reason of the facts herein alleged, and a *lack of any defect in the equipment of said tug*, or any fault or negligence in her navigation, in the absence of any fault or negligence in said tug, her owner, master, or crew, and because of the fault and negligence and lack of proper equipment of the said barge, neither this respondent nor its said tug is liable for or chargeable with any of the damage or injury sustained by the libellant as alleged in the libel."

Both the libelant and claimant introduced an unusually large amount of evidence, resulting in a decree by the court below dismissing the libel at the libelant's cost.

ROSS, Circuit Judge, after stating the case:

In support of the decree below the proctors for the appellee insist that even though the evidence be held to show that the stranding of the barge and the consequent damage was caused by the negligence of the tug, yet its owner cannot be held liable therefor because of that clause of the contract between the parties reading:

"The Tug Company is not to be held liable for any damage which might happen to the said Barge 'Bangor' or its cargo while in tow or at anchor."

The contention of the appellant that there was a contrary verbal agreement cannot be sustained.

In view of the record, we regard it as clear that that clause must be taken as appears in the written contract.

But the point also made for the appellant that the tug was not allowed by law to avoid by contract the consequences of its own negligence remains to be considered and determined.

This court said in effect that it would not be in the case of Alaska Commercial Company vs. Williams, 128 Fed. 362, citing in support thereof The Steamer Syracuse, 12 Wall,.

167, In re Moran, 120 Fed. 556, The Somers N. Smith, Id. 569, The M. J. Cummings, 18 Fed. 178, The Jonty Jenks, 54 Fed. 1021. It is said, however, for the present appellee, that the question was not contested in Alaska Commercial Co. vs. Williams, but was decided on the "assumption" that the defendant in error there had correctly stated the law to be that such a contract exempting such a tug from liability for its own negligence is contrary to public policy and void.

We are not prepared to accept the correctness of this suggestion, for while this Court held that the contract relied on in the Williams case was not proved, it gave as a further reason for its judgment in the case that, conceding such contract to have been proven, the towing vessel would still have been liable for the failure of her master to exercise reasonable care and maritime skill in conducting the towage service.

It is not claimed that the decision of the Supreme Court in the case of the Steamer Syracuse has ever been expressly reversed, or, indeed, criticised by that Court, but it is contended in effect that it has been practically reversed because it denied a petition for a writ of certiorari in the case of The Oceanica, decided by the Circuit Court of Appeals for the Second Circuit, 170 Fed. 893, in which the majority of that Court—one judge dissenting—held that a contract of towage by which the tow assumes all risks releases the tug from liability from her own negligence resulting in injury to the tow; the majority of the Court conceding in its opinion on rehearing that its decision to that effect was a departure from previous decisions.

A careful examination of the prevailing opinions in that case we think shows that the decision was really based upon the law prevailing in the State of New York under which even a common carrier may contract against its own negligence; and such may have been the theory upon which the Supreme Court denied the petition for a writ of certiorari in the case.

In Boise Commercial Club vs. Oregon Short Line R. Co., 260 Fed. 769, 772, this Court said:

> "We assume that ordinarily the denial of the writ of certiorari by the Supreme Court may not indicate the expression of an opinion in affirmance of the law of the case as applied by the Circuit Court of Appeals; but where there is a single question involved, and that question is entirely one of jurisdiction, and there have been radically diverse decisions by the lower federal courts, the denial of the writ would fairly imply that the Court was satisfied that the jurisdictional point had been rightly decided."

It seems to us that if the Supreme Court had been dissatisfied with its previous decision in the case of the Steamer Syracuse, it would have granted the writ of certiorari in the case of "The Oceanica," and have reconsidered the question, and that we would not be justified in regarding its denial of the writ in the last-mentioned case as in effect departing from the rule announced in the case of the Syracuse which has stood unreversed, and, so far as we are advised, without criticism by it, for so many years—particularly as the case was relied upon in both the prevailing and dissenting opinions in the Oceanica case, and the further consideration of the question specifically requested in the following concluding clause of the opinion of the majority of the Court of Appeals on rehearing:

> "We do appreciate keenly that the decision of the majority of the court as to the right of a tug to contract against her own negligence is a departure from previous decisions. The question should, and we hope will, be set at rest by the Supreme Court."

But the appellant insists that even if the attempted limitation of the liability of the tug contained in the contract be valid, the latter was based upon a warranty of the seaworthiness of the tug, which it is contended did not exist for the reason that immediately prior to and at the time of the making of the contract and throughout the towage service, the tug lacked a sufficient complement of men to enable it to station a lookout upon it at any time during the voyage, and that because of the lack of a proper lookout the disaster occurred.

In the towage case of The Lady Pike, 21 Wall. 1, the Supreme Court said:

> "Standard authorities show that the first duty of the carrier, and one that is *implied by law*, is to provide a seaworthy vessel, well furnished with proper motive power, and furniture necessary for the voyage. Necessary equipment is as requisite as that the hull of the vessel should be staunch and strong, and she must also be provided with a crew adequate in number and competent for their duty with reference to all the exigencies of the intended route, and with a competent and skilful master, of sound judgment and discretion, and with sufficient knowledge of the route and experience in navigation to be able to perform in a proper manner all the ordinary duties required of him as master of the vessel. Owners of vessels, employed as such carriers, must see to it that the master is qualified for his situa-

tion, as they are responsible for his want of skill and knowledge in that behalf and for his negligence and bad seamanship."

In the Pacific Mail S. S. Company Case, 130 Fed. 76, 82, this court held it to be the duty of the owners of a steamer carrying goods and passengers not only to provide a seaworthy vessel, but that they must also provide the vessel with a crew adequate in number and competent for their duty with reference to all the exigencies of the intended voyage,

"not merely competent for the ordinary duties of an uneventful voyage, but for any exigency that is likely to happen, such, for example, as unfortunately did happen in the present case—the striking of the ship on a reef of rocks—and the consequent imperative necessity of instant action to save the lives of passengers and crew."

In Wilder's S. S. Co. vs. Low, 112 Fed. 161, 172, we also said:

"For an officer to leave his vessel entirely without a lookout, especially when another vessel is known to be in the vicinity, is culpable negligence, and approaches very nearly the line of reckless navigation. The importance of the lookout and the high degree of vigilance required of the person occupying that position on a vessel, is clearly stated by the United States Supreme Court in The Ariadne, 13 Wall. 475, 478, 20 L. Ed. 543, as follows:

"'The duty of the lookout is of the highest importance. Upon nothing else does the safety of those concerned so much depend. A moment's negligence on his part may involve the loss of his vessel, with all the property and the lives of all on board. The same consequence may ensue to the vessel with which his shall collide. In the performance of this duty the law requires indefatigable care and sleepless vigilance. * * * It is the duty of all courts charged with the administration of this branch of our jurisprudence to give it the fullest effect whenever the circumstances are such as to call for its application. Every doubt as to the performance of the duty, and the effect of nonperformance, should be resolved against the vessel sought to be inculpated until she vindicates herself by testimony conclusive to the contrary.'

"No deviation from this statement has been made by the Supreme Court in later cases (The Oregon, 158

U. S. 186, 193, 15 Sup. Ct. 804, 39 L. Ed. 943), and it is therefore as binding today as when first made."

See, also,

The Caledonia, 157 U. S. 124, 130;
The Edwin I. Morrison, 153 U. S. 199, 210;
The Queen, 78 Fed. 155, 94 Fed. 180;
The Drill Boat No. 4, 233 Fed. 589, 594; 35 Cyc. 245.

According to the uncontroverted testimony of the captain of the tug in the present case, its crew consisted of two engineers, two firemen, and two coal-passers, all of whom were confined entirely to the engine department, one cook, whose duties were confined to the galley, one deck-hand, whose duties were to walk around the deck all day and sleep at night "unless called for something," and two other deck-hands whose duties were to stand watch and watch as helmsmen—the other three men on the tug being the captain thereof (Johnson), one mate named Dawe, and Captain Bjerre, who, according to the testimony of the captain of the tug was "shore skipper" and "don't make trips like" the one in question, but was on that voyage entered on the articles as "purser" and acted as "pilot."

The captain of the tug on direct examination by the proctor for the libelant was questioned, and answered, as follows:

"Q. Do you remember the night that the barge broke adrift off of Mary Island? A. Yes. Q. Who was on watch—what members of your crew were on watch that night after 12 o'clock? A. Captain Bjerre, Sam Dawe, and myself. Q. Did you have a man in the wheelhouse? A. Quartermaster or deck-hand. Q. You had a man in the engine-room? A. Yes. Q. Did you have a lookout? A. Well, we were all on the lookout. Q. I asked if you had a lookout? A. Yes. What lookout did you have? A. The three of us in the wheel-room. Q. And that is all? A. That is all. Q. You had no lookout between the wheel-house and the stem of the vessel? A. No."

And on cross-examination that witness was questioned, and answered, as follows:

"Q. How far is the wheelhouse from the stem of the vessel on the Commodore? A. Forty feet. Q. How high is the floor of the wheelhouse above the bow of the vessel on a straight line? A. About 12 feet, I should think. Q. Is there any obstruction between the wheelhouse and the stem of the vessel? A. No. Q. Is there anything to obscure the sight or prevent sound?

A. Nothing at all. Q. Across the bow. That night, from 11:19 until the barge stranded—until the shackle broke—were the windows of the pilot-house open? A. Yes. Q. Where were you stationed? A. Stationed looking out through the window; we had the window open and we were laying out through there. Q. Laying out? A. Laying out. Q. Could you discern objects from the vessel better from the pilot-house than from the stem of the vessel? A. Yes. Q. Could you discern objects from the wheelhouse better than from any other portion of the vessel? A. Yes. Q. How about hearing sounds from the wheelhouse as compared with hearing them from the stem of the vessel? A. Hear much better."

Croft was the deck-hand who was on watch at the time of the accident. Being questioned what were his duties, he answered:

"My duties—we have to do everything, you know; when you are a deck-hand you do everything; we have a watch and have to steer the vessel the same as a quartermaster. Q. Helmsman? A. Yes, when you ship as a quartermaster you don't have to do any other kind of work; when you ship as a deck-hand you have to do all kinds of work. Q. Did you act as helmsman on that voyage? A. Yes. Q. Every day? A. Yes."

As said by the Court below in its opinion, this tug, with its tow, was "to go through the waters of southeastern Alaska, themselves none too easy, up through the gulf of Alaska, one of the most turbulent stretches of water in the world, out into the ocean, and up into Cook's Inlet, at the spring equinox." The record shows that when the vessels passed Port Simpson the weather was squally, the wind being about 25 to 30 miles an hour, after which they passed Tree Point—that being the last point passed before the wreck at Mary Island, a distance of about 17½ or 18 miles from Tree Point. During that run the wind increased to about 30 miles an hour, with frequent snowsqualls, the night being dark. Smoke obscured the vision of those in the tug's pilot-house from Tree Point to one o'clock to some extent, and did not wholly disappear at any time before the accident. This, according to the testimony of her Captain.

It is conceded that the tug did not have at the time of the disaster, nor, indeed, at any time, a lookout stationed forward, but the contention of the claimant is that the men in the pilot-house of the tug were all lookouts and had a better vision than would have had a man stationed at the stem of the tug. The claimant furthermore contends that

it was not customary for such tugs to have any lookout stationed forward; and the court below held that the preponderance of the testimony was to the latter effect.

The testimony was certainly conflicting upon the point, Captains Johnson and Bjerre testifying that the proper place for such lookout was in the pilot-house, and the witnesses Neilsen and Snoddy testifying in effect that the proper place was on the forecastle head. But regardless of the question of the preponderance of evidence on the point, we think it clear that custom counts for nothing as against the law. See authorities, *supra*, and, The Schooner Catherine vs. Dickinson et al., 17 How. 162, 177, where the Supreme Court, referring to the evidence given to prove such a custom, said:

> "However this may be in the day time, we think that such custom or usage cannot be permitted as an excuse for dispensing with a proper lookout while navigating in the night, especially on waters frequented by other vessels. Under such circumstances, a competent lookout stationed upon a quarter of the vessel affording the best opportunity to see at a distance those meeting her, is indispensable for a safe navigation, and the neglect is chargeable as a fault in the navigation."

But even if it be conceded that a man stationed in the pilot-house of the tug, charged with the duty of keeping a lookout, would answer the requirements, the evidence in the case clearly shows, in our opinion, that neither of the men in the pilot-house of this tug during the time in question, constituted such a lookout; for one of the men was the helmsman, whose duty it was to watch the compass and steer the vessel under orders given him, and the other two were Captains Johnson and Bjerre, who, when both were present, were part of the time examining the chart and engaged in conversation; it further appearing that at the time the dangerous situation was discovered and for a considerable period immediately preceding Captain Johnson was not in the pilot-house but in some other part of the vessel. It cannot be properly held that before Captain Bjerre, who was at the time directing the movement of the tug, saw the waves breaking upon the Island, and suddenly, without any warning to the tow, ordered the wheel put hard over, thereby breaking the tow's shackle, and resulting in its being grounded, a lookout properly stationed would not have seen and reported the Island ahead in ample time to have afforded the tug an opportunity to make a safe turn with the tow following.

We entertain no doubt that under the law, applied to the existing conditions, the absence of a man to serve as a lookout was the absence of an essential part of the proper equipment of the tug, and rendered it to that extent unseaworthy.

Moreover, we think it was gross negligence on the part of its directing officer—without giving any warning whatever to the tow—to suddenly order the wheel put hard over, resulting, as the evidence clearly shows, in a jerk that broke the tow's shackle, thereby causing her to drift and resulting in her wreck upon the shore of the Island. Had any notice of the intended change in the tug's course been given the tow, an opportunity for a corresponding change in the course of the latter would have been afforded and the sudden jerk that broke the shackle of the tug have been lessened and the break very likely avoided.

Regarding the shackle the court below said in its opinion:

> "The shackle in question was purchased by libelant about ten months before the accident—*whether it was new or second-hand when purchased by him does not appear*. How much, if any, usage it had been subjected to before its purchase by libelant does not appear. It does appear, however, that it had been used on this barge as an appliance for towing for a distance of about 10,500 miles—three trips from Seattle to Anchorage and return, and also the trip from Seattle to the place of the wreck. Several shipmasters give instances of shackles breaking without other apparent cause than crystallization resulting from long usage, and instances of other shackles breaking under strains in loads which they had a short time before borne with the greatest of ease.
>
> "Now, this shackle showed crystallization. Avis, the expert for libelant, says that crystallization comes only from sudden severe shock, and that the shackle in question 'was broken by a stress very suddenly applied, which undoubtedly would have broken a shackle made from a much larger bar'; but Tinkham and Lingerfelt, experts for the claimant, deny this, testifying that the vibration which comes from much usage will in the course of time cause the iron in the shackle to become weakened by crystallization; and they are also of the opinion that the vibration of the aforesaid trips might have been sufficient to have caused the crystallization.
>
> "It is in evidence that the tug in the case at bar carried and had in use a towing-machine of the most approved pattern, a device designed and effective for the

elimination of those sudden jerks of the tow line which are caused by the sudden taking up of the slack when turns are made. * * *

"The shackle was part of the equipment of the barge furnished by the libelant. The latter at least contracted that the appliances furnished by him should be suitable and strong enough for all strains to which it was not unreasonable to expect it would or might be subjected.

"The tug escaped, and if the barge had followed the tug it would have escaped. It did not follow the tug, because the shackle broke. The shackle broke because it was not strong enough to stand the strain. I am satisfied from the evidence that negligence cannot be ascribed to the tug for its action or non-action at or about the time the shackle did break."

The underscoring by the Court below of the clause to the effect that it did not appear from the evidence whether the shackle "was new or second-hand" when purchased by the libelant, would seem to indicate that the Court concluded that the breaking of the shackle by the sudden and abrupt turn of the tug might likely have been occasioned by its second-hand condition when purchased by the libelant. But such was not the evidence. The substance of the only testimony upon the subject that has been cited or that we have been able to find is that the shackle was new when purchased by the libelant from a ship chandler on the waterfront in Seattle, and the witness Foster, who was supercargo on the barge, and, according to his testimony, had been a master mariner for about 25 years, and who testified that the barge itself and its equipment was at the time in question of the best, being asked specifically regarding the shackle, was questioned, and answered, among other things, as follows:

"Q. What was the condition of that shackle in respect to being of sufficient size as a part of the towing device for that voyage? A. I couldn't see where it could be in any place better, by previous work we done with it; the shackle was all right. Q. How long had you used that shackle before this voyage in question? A. Oh, we made two or three trips with it. Q. To where? A. Anchorage. Q. From where? A. Seattle, and the west coast of Port Simpson. Q. The same shackle? A. Yes, sir."

The evidence showing that the tackle was new when bought by the libelant, was of sufficient size, had been used successfully in several similar voyages to Alaska, and had stood the strain of the towing here in question in squally

weather up to the very point where the unusual strain was put upon it by the sudden jerk of the tug cause by its abrupt turn without any warning or opportunity given the tow to meet such strain by a conforming change in its course, leaves, in our opinion, no ground for any other conclusion than that the break would not have occurred but for the negligent navigation of the tug.

There remains only to consider the amount of damages sustained by the libelant that he is entitled to recover.

On that point the contention of the appellant is that he is entitled to a decree for the aggregate amount of $33,521.47 (with interest and costs) shown in a tabulated statement introduced in evidence as Exhibit "R."

We are of the opinion that the evidence in the case is not sufficient to enable us to fix definitely the amount of damages for which the libelant is entitled to judgment. For example, it is claimed on behalf of the appellant that in determining the value of the barge at the time of her stranding the Court "will take judicial notice of the enormous universal increase in value of all kinds of craft," growing out of the then war conditions, and likewise in determining the amount of demurrage to which the libelant is entitled. It is obvious, we think, that satisfactory evidence on all such questions is essential to the entry of a proper judgment.

Accordingly, the decree appealed from is reversed and the case remanded to the court below for further proceedings in accordance with the views above expressed, and with leave to the respective parties to introduce further evidence on the question of damages.

[Endorsed]: Opinion. Filed October 4, 1920. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

United States Circuit Court of Appeals, for the Ninth Circuit.

No. 3448.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & *BRIDGE* COMPANY, a Corporation,

Appellee.

Decree U. S. Circuit Court of Appeals.

Appeal from the District Court of the United States for the District of Alaska, Division No. 1.

This cause came on to be heard on the transcript of the record from the District Court of the United States for the District of Alaska, Division No. 1, and was duly submitted.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court, that the decree of the said District Court in this cause be, and hereby is, reversed, with costs in favor of the appellant and against the appellee, and that this cause be and hereby is remanded to the said District Court for further proceedings in accordance with the views expressed in the opinion of this Court, and with leave to the respective parties to introduce further evidence on the question of damages.

It is further ordered, adjudged and decreed by this Court, that the appellant recover against the appellee for his costs herein expended, and have execution therefor.

[Endorsed]: Decree. Filed and Entered October 4, 1920. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

In the United States Circuit Court of Appeals, for the Ninth Circuit.

No. 3448.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS, TUG & BARGE COMPANY, LTD., a Corporation,

Appellee.

Stipulation for Stay of Mandate.

It is hereby stipulated between the said appellant and his proctor, W. H. Gorham and British Columbia Mills, Tug & Barge Company, Appellee, and its proctors, Farrell, Kane & Stratton, that the issuance of a mandate from the above-named court to the court below may be stayed for a period of ninety days from and after the 4th day of October, 1920, within which time the appellee shall present its petition for a writ of certiorari to the Supreme Court of the United States and file with the clerk thereof a certified copy of the record; and if such petition be so presented and certified

copy of the record be so filed within the time aforesaid, the the issuance of said mandate shall be further stayed unti the Supreme Court shall have finally disposed of the appli cation for said writ. Said proctor for appellant hereb waives notice of application for a stay of the issuance o a mandate from the above-named court to the court belo and consents that an order in conformity herewith may b made and entered.

Dated at Seattle, Washington, this 27th day of Octobe 1920.

A. W. MYLROIE,
By WILLIAM H. GORHAM,
His Proctor.
WILLIAM H. GORHAM,
Proctor for Appellant.

BRITISH COLUMBIA MILLS, TUG & BARG COMPANY,
By C. H. FARRELL,
J. H. KANE,
W. B. STRATTON,
Its Proctors.
C. H. FARRELL,
J. H. KANE,
W. B. STRATTON,
Proctors for Appellee.

[Endorsed]: Stipulation for Stay of Mandate. Fil October 30, 1920. F. D. Monckton, Clerk.

In the United States Circuit Court of Appeals, for t Ninth Circuit.

No. 3448.

A. W. MYLROIE,
Appellant,
vs.
BRITISH COLUMBIA MILLS, TUG & BARGE CO PANY, LTD., a Corporation,
Appellee.

Order Staying Issuance of Mandate Under Rule 32 to a Including the First Day of January, 1921.

On consideration of the stipulation of proctors, filed the 30th instant, and good cause therefor appearing, IT ORDERED that the issuance of a mandate under rule of this Court in the above-entitled cause be, and hereby stayed to and including the first day of January, 1921, enable the appellee to present a petition for a Writ of C

tiorari to the Supreme Court of the United States, and to file with the clerk thereof a certified copy of the record in said cause; and said petition be so presented and said certified copy of the record be so filed on or before January 1st, 1921, then the said mandate shall not be issued until the Supreme Court finally disposes of said petition.

W. H. HUNT,
U. S. Circuit Judge.

WILLIAM H. GORHAM,
Proctor for Appellant.

[Endorsed]: Order Staying Issuance of Mandate, etc. Filed October 30, 1920. F. D. Monckton, Clerk.

ORIGINAL.

United States Circuit Court of Appeals, for the Ninth Circuit.

No. 3448.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation,

Appellee.

Praecipe for Apostles on Appeal.

To the Clerk of the said Court:

Sir: Please make and furnish me with a certified printed Apostles on Appeal, (including the proceedings had in said Circuit Court of Appeals) and not less than nine uncertified copies thereof, for use on an application to be made to the Supreme Court of the United States for the issuance of a Writ of Certiorari under Section 240 of the Judicial Code, in the above-entitled cause, the said Apostles on Appeal to consist of a copy of the following:

1. Printed Apostles on Appeal on which the cause was heard in said Circuit Court of Appeals, to which will be added a printed copy of the following-entitled proceedings that were had, and of the papers that were filed in said Circuit Court of Appeals, viz.:
2. Order of Submission, entered May 17, 1920;
3. Order Directing Filing of Opinion, etc., entered October 4, 1920;
4. Opinion, filed October 4, 1920;
5. Decree, filed and entered October 4, 1920;

6. Praecipe for Apostles, filed October 30, 1920;
7. Certificate of Clerk, U. S. Circuit Court of Appeals to said Apostles.

C. H. FARRELL,
J. H. KANE,
W. B. STRATTON,
Counsel for Appellee.

Service of a copy of the within praecipe is hereby admitted this 27th day of October, A. D. 1920.

WILLIAM H. GORHAM,
Counsel for Appellant.

[Endorsed]: Praecipe for Apostles on Appeal. Filed October 30, 1920. F. D. Monckton, Clerk.

United States Circuit Court of Appeals, for the Ninth Circuit.

No. 3448.

A. W. MYLROIE,

Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation,

Appellee.

Certificate of Clerk U. S. Circuit Court of Appeals to Record Certified Under Section 3 of Rule 37 of the Rules of the Supreme Court of the United States.

I, Frank D. Monckton, as Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, do hereby certify the foregoing seven hundred and sixty-eight (768) pages, numbered from and including 1 to and including 768 to be a full, true and correct copy of the entire record of the above-entitled case in the said Circuit Court of Appeals, excluding all original exhibits, made pursuant to praecipe of counsel for the appellee, and certified under section 3 of rule 37 of the rules of the Supreme Court of the United States, as the originals thereof remain on file and appear of record in my office.

ATTEST my hand and the seal of the said the United States Circuit Court of Appeals for the Ninth Circuit, at the city of San Francisco, in the State of California, this 8th day of November, A. D. 1920.

F. D. MONCKTON,
Clerk.

[Seal]

By Paul P. O'Brien,
Deputy Clerk.

UNITED STATES OF AMERICA, *ss:*

[Seal of the Supreme Court of the United States.]

The President of the United States of America to the Honorable the Judges of the United States Circuit Court of Appeals for the Ninth Circuit, Greeting:

Being informed that there is now pending before you a suit in which A. W. Mylroie is appellant, and British Columbia Mills Tug & Barge Company is appellee, No. 3448, which suit was removed into the said Circuit Court of Appeals by virtue of an appeal from the District Court of the United States for the District of Alaska, Division No. 1, and we, being willing for certain reasons that the said cause and the record and proceedings therein should be certified by the said Circuit Court of Appeals and removed into the Supreme Court of the United States, do hereby command you that you send without delay to the said Supreme Court, as aforesaid, the record and proceedings in said cause, so that the said Supreme Court may act thereon as of right and according to law ought to be done.

Witness the Honorable Edward D. White, Chief Justice of the United States, the fifth day of February, in the year of our Lord one thousand nine hundred and twenty-one.

JAMES D. MAHER,
Clerk of the Supreme Court of the United States.

[Endorsed:] File No. 28,021. Supreme Court of the United States, October Term, 1920. No. 664. British Columbia Mills Tug & Barge Company, vs. A. W. Milroie. Writ of Certiorari. No. 344 United States Circuit Court of Appeals for the Ninth Circuit. Filed Feb. 18, 1921. F. D. Monckton, Clerk, by Paul P. O'Brien, Deputy Clerk.

United States Circuit Court of Appeals for the Ninth Circuit.

No. 3448.

A. W. MYLROIE, Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation, Appellee.

Stipulation.

It is hereby stipulated and agreed by and between A. W. Mylroie, Appellant, and British Columbia Mills Tug & Barge Company, a corporation, Appellee, that the certified transcript of the record now on file in the Supreme Court of the United States, in that certain cause therein pending, entitled: British Columbia Mills Tug & Barge Company, Ltd., a Corporation, Petitioner, vs. A. W. Mylroie,

spondent, No. 664, shall stand and be considered as the return to the Writ of Certiorari heretofore granted by the Supreme Court of the United States in the above entitled cause in said Court, and dated the 5th day of February, 1921.

It is further stipulated and agreed that all of the original exhibits in said cause No. 3448 in said Circuit Court of Appeals, shall be sent up to the Supreme Court of the United States as a part of the record in said cause.

Dated, this 10th day of February, 1921.

(Sgd.) WILLIAM H. GORHAM,
Proctor for A. W. Mylroie, Appellant.

(Sgd.) W. B. STRATOON,
C. H. FARRELL,
J. H. KANE,
Proctors for British Columbia Mills Tug & Barge Company, Appellee.

[Endorsed:] Stipulation as to Return to Writ of Certiorari. Filed February 18, 1921. F. D. Monckton, Clerk, by Paul P. O'Brien, Deputy Clerk.

United States Circuit Court of Appeals for the Ninth Circuit.

No. 3448.

A. W. MYLROIE, Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation, Appellee.

Certificate of Clerk U. S. Circuit Court of Appeals to Stipulation as to Return to Writ of Certiorari from the Supreme Court of the United States.

I, Frank D. Monckton, as Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, do hereby certify the preceding page to be a full, true and correct copy of a "Stipulation as to Return to Writ of Certiorari," filed in the above entitled cause on the 18th day of February, A. D. 1921, as the original thereof remains on file and of record in my office.

Attest my hand and the seal of the United States Circuit Court of Appeals for the Ninth Circuit, at the City of San Francisco, in the State of California, this 18th day of February, A. D. 1921.

[Seal of United States Circuit Court of Appeals, Ninth Circuit.]

F. D. MONCKTON,
Clerk.
By PAUL P. O'BRIEN,
Deputy Clerk.

United States Circuit Court of Appeals for the Ninth Circuit.

No. 3448.

A. W. MYLROIE, Appellant,

vs.

BRITISH COLUMBIA MILLS TUG & BARGE COMPANY, a Corporation, Appellee.

Return to Writ of Certiorari.

By direction of the Honorable the Judges of the United States Circuit Court of Appeals for the Ninth Circuit, I, Frank D. Monckton, as Clerk of said Court, in obedience to the annexed writ of certiorari, issued out of the Honorable the Supreme Court of the United States and addressed to the Honorable the Judges of the United States Circuit Court of Appeals for the Ninth Circuit, commanding them to send, without delay, to the said Supreme Court the record and proceedings in the above-entitled cause, do attach to the said writ of — certified copy of:

(1) Stipulation as to Return to Writ of Certiorari, the original of which said Stipulation was filed in said cause on the 18th day of February, A. D. 1921; and

(2) Libellant's Exhibits: A, B, C, D, D1, D2, D3, D4, D5, D6, D7, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, and A attached to Libellant's Depositions;

Claimant's Exhibits: 1, 2, 3, 4, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 1, 2, 3, 4, 5 attached to Claimant's Depositions; filed February 13, 1920,

and in accordance with said stipulation, do hereby send the certified copy thereof, together with the original exhibits, to the said Supreme Court as the Return to the said Writ of Certiorari.

In testimony whereof, I have hereunto set my hand and affixed the Seal of the United States Circuit Court, of Appeals for the Ninth Circuit, at the City of San Francisco, in the State of California, this 18th day of February, A. D. 1921.

[Seal of United States Circuit Court of Appeals, Ninth Circuit.]

F. D. MONCKTON,
Clerk,
By PAUL P. O'BRIEN,
Deputy Clerk.

[Endorsed:] File No. 28,021. Supreme Court U. S., October Term, 1920. Term No. 664. British Columbia Mills Tug & Barge Company, vs. A. W. Mylroie. Writ of certiorari and return. Filed February 24, 1921.